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COLUMBIA UNIVERSITY BULLETIN

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College of Physicians and Surgeons

OF THE FACULTY OF MEDICINE

1958-1959

COLUMBIA-PRESBYTERIAN MEDICAL CENTER

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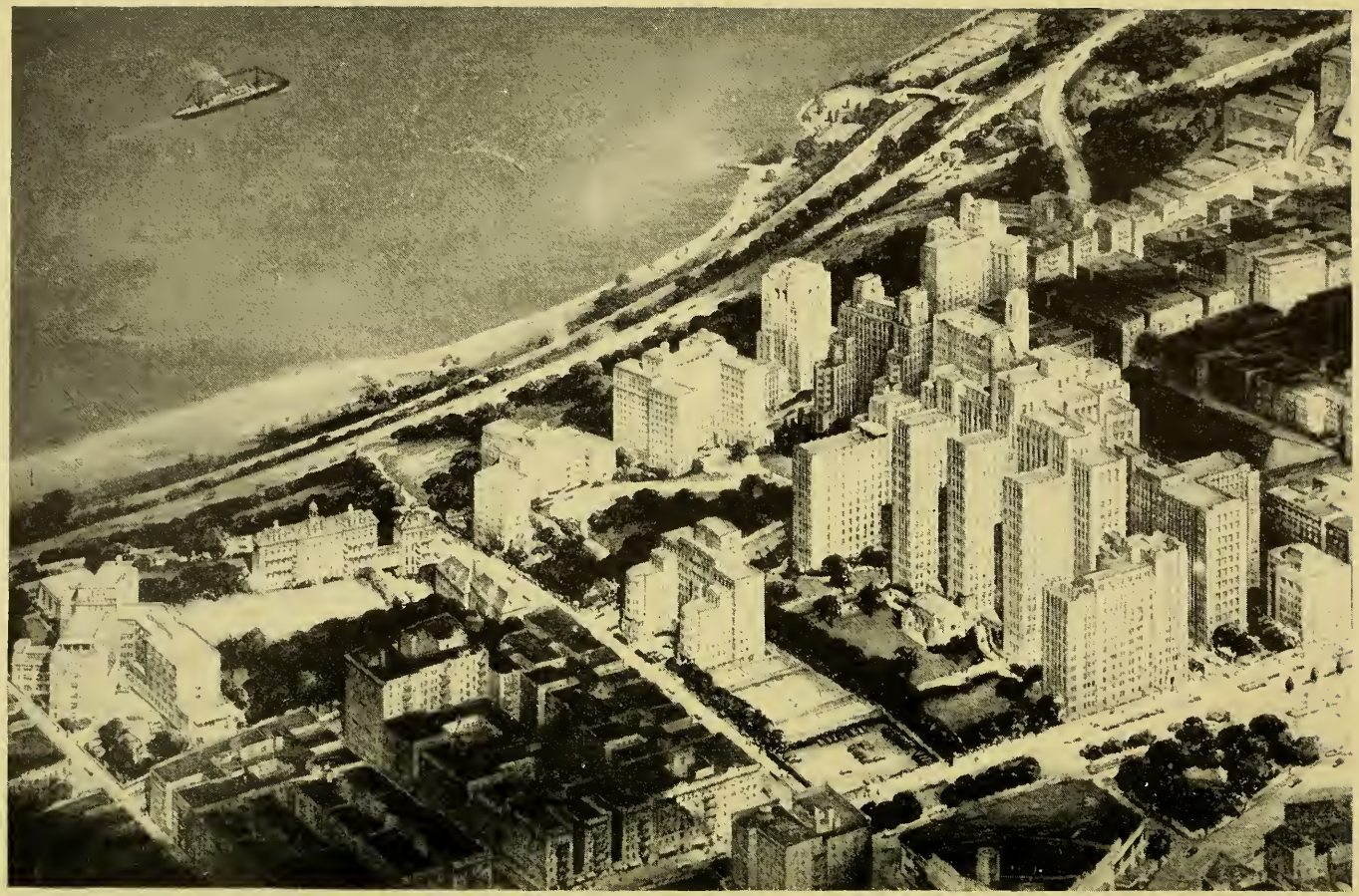
View of Bard Hall from Riverside Drive



Columbia-Presbyterian Medical Center

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THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF DENTAL AND ORAL SURGERY

The School of Dental and Oral Surgery became a part of the Faculty of Medicine on July 1, 1945.

The course in dentistry covers four academic years leading to the degree of Doctor of Dental Surgery. The greater part of the first two years of the curriculum is taken in the fundamental science departments of the College of Physicians and Surgeons.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The establishment in 1937 of the Department of Nursing of the Faculty of Medicine marked another step in the close cooperation between Presbyterian Hospital and Columbia University in the education of personnel for the medical and allied professions. The

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QUALITY CONTROL MARK

Board of Trustees of the Presbyterian Hospital has considered the education of nurses one of its primary responsibilities since 1892, when the School of Nursing was founded under the direction of Anna C. Maxwell.

The basic course in nursing is an integral part of a larger educational program designed not only as a sound preparation for the usual practice of bedside nursing, but also as a foundation for further education in the fields of public health nursing, school and industrial nursing, nursing school administration, and other phases of nursing practice and education.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission, should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 192 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 110 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 168-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 300 beds for the treatment and study of cancer. A program of research and of graduate and undergradu-

ate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,611 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,380 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 280 patients, including 60 in the Country Home at Far Rockaway.

Institute for the Crippled and Disabled, founded in May, 1917, was the first modern rehabilitation center established in the United States. The program of rehabilitation at the Institute is integrated with the orthopedic, medical, and other professional activities of the Medical Center through the Department of Physical Medicine and Rehabilitation of the University and a corresponding service in Presbyterian Hospital.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 112 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 890 beds devoted to the treatment of chronic diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,002 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 430 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 567 beds, including 80 beds for infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In

Hospital." It has 192 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and fifteen thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than twenty-seven hundred periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Dentistry, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The first, second, and third floors are arranged to accommodate women students.

Rates for accommodations range from $227 to $500 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal prepaid board plan. The present rate is $360 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The entering class will register September 11-13, 1958. Application for admission can be made for the next incoming class only, and requests for application forms should be addressed to the Dean. Every application must be accompanied by a check or money order for $10.00, payable to Columbia University, to cover the cost of processing the application. The fee is not returnable and is not credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is $75 for any period which is not longer than a winter or spring session. During the summer, between Commencement and registration in September, the fee is $10.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays, and on Saturday from 9 a.m. to 12 m. The periods set aside for registration in each session are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the University fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of $3.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

University fee	
For all students for one academic year, payable in two installments	$ 48.00
Tuition fee	
For the full course in medicine for one academic year (or equivalent), payable in two installments	1,100.00

For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.

Medical school athletic and recreational fee

This fee entitles students to use without charge the athletic and recreational facilities of Bard Hall, the residence for medical students. For all students, per academic year, payable in two installments 10.00

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year 25.00

Application fees

For admission	10.00
For each deficiency or special examination	10.00
For renewal of application for a degree (see below)	1.00

Late fees

For late registration	3.00
For late application for each deficiency or special examination	5.00
For late application, or renewal of application, for a degree	5.00

Rebates

The University fee, the student health and hospital fee, application fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, any unusual amount of breakage will be charged.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of $1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with microscopes of a satisfactory type. See page 56 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	Average	*Minimum*
Tuition and fees	$1,183	$1,183
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	$2,873	$2,437

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 54–56.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of $10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-second year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of a director.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member, and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the session for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

I. Recommended for advancement
II. Recommended for readmission to the same class
III. Recommended neither for advancement nor readmission
    A. Because of academic failure
    B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 25 and 26, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Doctor of Dental Surgery, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, occupational therapy, and dental hygiene. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the Schools of Dental and Oral Surgery and of Public Health and Administrative Medicine, of Nursing, and of the Courses for Physical and Occupational Therapists outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about $3,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is normally $2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about $3,000.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, A.M., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The normal stipend is $4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about $900, the annual income of the fund.

Eckhouse. The Minnie Eckhouse Fellowship in neurological surgery enables the holder to follow the study of neurological surgery after graduation.

Ellis. Two George W. Ellis Fellowships are awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of each fellowship is about $2,000, the annual income of the fund.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the Executive Officer of the Department of Microbiology. The value of the fellowship is approximately $2,000.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the Executive Officer of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about $1,800, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the dis-

eases of children in this country or abroad. The value of the fellowship is about $1,500, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about $2,500, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about $1,500, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about $1,000, the income of the fund which has accrued during four years. It will be awarded next in 1961-1962.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the Executive Officer of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about $2,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1908. The Class of 1908 Gift was given on the fiftieth anniversary of the graduation of the class; the use of the income has not yet been determined.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John–Princeton. The St. John–Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is $200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the

best thesis on puerperal fever. The value of the prize is about $70, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Executive Officer of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about $30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about $50, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about $50, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about $260, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about $200, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about $260. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one session of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the winter session should be filed by September 1; for the spring session, by December 15.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available peri-

odically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who are specially qualified by a university level of training in one of the specialized fields of practice. *Only current residents appointed in one of the affiliated hospitals and Fellows registered at Columbia University are eligible for registration for the degree.* Those with proper qualifications who wish to apply for admission to register for the degree may do so on the recommendation of the executive officer of the department concerned.

The fields of graduate study are:

Anesthesiology
Dermatology
Medicine
Neurology
Neurological surgery
Obstetrics and gynecology
Ophthalmology
Orthopedic surgery
Otolaryngology
Pathology
Pediatrics
Physical medicine
Plastic surgery
Psychiatry
Radiology
Surgery
Urology

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which

require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the chest service of Bellevue Hospital, the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hospital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

	First Year	HOURS
Anatomy 101FS	Microscopic anatomy	158
Anatomy 102ST	Systematic human anatomy	276
Anatomy 103FS and *Public Health 201*	Embryology—statistics—genetics	82
Anatomy 106S	The nervous system	160
Biochemistry 101F	Introductory biochemistry	168
Physiology 101TFo	Human physiology	154
Psychiatry101FST	Introduction to human behavior	30
Pathology		44
	TOTAL	1,072

Second Year

		HOURS
Anatomy 105FS	Clinical anatomy	20
Medicine 101T	Elementary physical diagnosis	88
Medicine 102S	Elementary clinical pathology	88
Medicine 103T	Introductory medicine	10
Microbiology 101F	General microbiology	140
Microbiology 105F	Infection, immunity, etc.	52
Neurology 101T	Neurological examination	20
Pathology 101FST	General and special pathology	344
Pathology 102S	Neuropathology	33
Pathology 103FS	Medicine-pathology case study	33
Pharmacology 101ST	General and special pharmacology	121
Psychiatry 102S	Psychopathology	10
Public Health 101S	Parasitic diseases	51
Surgery 101S	Introduction to surgery	11
Surgery 102T	Principles of surgery	60
	TOTAL	1,081

Third Year

Dermatology 203–204	34
Medicine 201–202, 203–204, 205–206	447
Neurology 207–208, 209–210	38
Obstetrics and Gynecology 201–202	56
Ophthalmology 201–202, 203–204	42
Orthopedic Surgery 201–202, 203–204	80
Otolaryngology 201–202, 203	40
Pediatrics 201–202, 207–208	208
Psychiatry 203–204	147
Public Health 203–204	76
Radiology 201–202, 206	24
Surgery 201–202, 204–205, 211–212	219
Electives	385
TOTAL	1,796

Fourth Year

Dermatology 205–206	28
Medicine 205–206, 207–208, 209–210, 216, 221–222, 223–224, 225–226	481
Neurology 202	30
Obstetrics and Gynecology 203–204	280
Orthopedic Surgery 205–206	24
Pediatrics 203–204	140
Pharmacology 202	16
Psychiatry 205	15
Radiology 203–204	16
Surgery 209–210, 213–214, 217–218, 219–220	292
Urology 201–202	36
Electives	280
TOTAL	1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*acting executive officer*), F. A. Mettler (*Neurology*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, M. R. Murray (*Surgery*), C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professors: E. B. Kaplan, H. H. Shapiro

Assistant Professors: C. A. Ely, D. D. Johnson, M. L. Moss, G. D. Pappas, W. M. Rogers

Associates: E. A. MacDowell, E. A. Manginelli

Instructors: J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, O. Hase, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Smelser, Johnson, Pappas, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. An interdepartmental course. 4 pts.

Lectures, demonstrations, and laboratory work correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 105FS—Clinical anatomy. One hour a week for twenty weeks. Second year. 2 pts. Professor Rogers and members of the clinical staffs.

A course of lectures and demonstrations in which the more important phases of anatomy are reviewed by clinicians and discussed in relation to their application in different fields of clinical work.

Anatomy 106ST—The nervous system. First year. An interdepartmental course. 6 pts.

Lectures, demonstrations, and laboratory work correlating the fields of neuroanatomy, neurophysiology, neurology, neurochemistry, and psychiatry.

SUMMER SESSION 1958

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professors: V. Apgar, E. M. Papper (*executive officer*)
Associate Professors: D. A. Holaday, L. C. Mark
Assistant Professors: B. R. Fink, M. J. Frumin, E. C. Hanks, J. Henley, J. Kreiselman,* S. H. Ngai, H. Rackow, H. Schwartz
Associates: L. Brand, R. M. Epstein, R. A. Jacobs, M. M. Kritchman, V. Lauderdale, A. Levy, S. Lynch, F. Moya, E. Salanitre, S. Silverman, C. C. Wycoff
Instructors: I. J. Chessar, R. W. Patterson,* S. N. Steen
Instructor in Pediatrics: L. S. James

At Mary Imogene Bassett Hospital:

Instructor: N. W. Andrew

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*executive officer*), D. Shemin,* W. M. Sperry (*Psychiatry*), H. B. Waelsch (*Psychiatry*)
Associate Professors: M. Karshan (*Dental and Oral Surgery*), S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, D. B. Sprinson, I. B. Wilson (*Neurology*), S. Zamenhof
Assistant Professors: J. A. Behre, M. Eisenberg, P. Feigelson (*Medicine*), H. B. Gillespie, E. Hirschberg (*Medicine*), A. L. Lajtha (*Psychiatry*), I. Mandl (*Microbiology*), H. Meltzer (*Psychiatry*), T. D. Price (*Urology*), H. S. Simms (*Pathology*), B. Weiss (*Psychiatry*)
Associates: G. Alexander (*Psychiatry*), E. Borek, W. Halpert, C. R. Harmison (*Pathology*), P. E. Hochstein (*Medicine*), P. Hoffman (*Medicine*), H. C. Lawler (*Neurology*), A. Linker (*Medicine*), M. E. Lombardo (*Urology*), S. Solomon (*Obstetrics and Gynecology*)
Associate in Medicine: G. B. Phillips
Research Associates: M. Berger (*Psychiatry*), G. Brawerman, G. Cohen (*Medicine*), I. Danishefsky, S. Ehrenpreis (*Neurology*), S. Greer, F. C. G. Hoskin (*Neurology*), A. S. McGavin, C. Pallavicini, A. Rosenberg, V. Ross, H. Shapiro, H. T. Shigeura, I. Sucher, W. Traub, C. E. H. Winestock, P. E. Zimmering
Instructors: A. I. Krasna, S. L. Miller, P. Srinivasan

* On leave.

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)
Assistant Professors: L. L. Abell (*Medicine*), E. H. Mosbach (*Medicine*)
Associate: M. M. Daly (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 111FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Loeb (*from Medicine*) in charge. See *Anatomy 114FFo.*

Biochemistry 211–212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215–216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Energetics and kinetics of enzyme action. Two hours. 3 pts. Professor Wilson and staff.

The application of the principles of thermodynamics and kinetics to problems of enzyme action.

Biochemistry 231–232—The biochemistry of the complex cellular constituents. 3 pts. The staff. W. 1–3.

Prerequisite: Elementary biochemistry and organic chemistry, and the permission of the department.

This course will treat one of the following topics at an advanced level for an entire semester: (*a*) the biochemistry of the proteins; (*b*) the biochemistry of the nucleic acids; (*c*) the biochemistry of the polysaccharides. In each case the chemistry, biogenesis, and biological action of the compounds will be discussed.

Biochemistry 301–302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

SCHOOL OF DENTAL AND ORAL SURGERY

The bulletin of the School of Dental and Oral Surgery, describing the content of the course leading to a Doctor of Dental Surgery (D.D.S.) degree, and the bulletin of Post-

graduate Courses for Dentists may be obtained from the Office of the Associate Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York 32, N.Y.

DERMATOLOGY

Professor: C. T. Nelson (*executive officer*)
Clinical Professor: P. Gross
Associate Professor of Clinical Dermatology: B. M. Kesten
Associate Clinical Professors: L. P. Barker, G. F. Machacek, J. L. Miller
Assistant Professor: M. Silva
Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, D. Moon-Adams, T. Rosenthal
Associates: W. Curth, F. P. Lowenfish
Research Associate: J. H. Hill
Instructors: B. J. Chester, B. Dobias, R. M. Montgomery, C. F. Post, J. E. Ridgway, L. Schweich, M. H. Slatkin, M. B. Sloane
Assistants: M. Brodey, J. T. Hearin, S. L. Sanders

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203–204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates.
At Vanderbilt Clinic.

Dermatology 205–206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Dr. Chester, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Six hours per week for twelve weeks. 3 pts. Professor Silva.
Hours to be arranged.

Dermatology 207–208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219–220—Histopathology of the skin. Professor Machacek.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: R. F. Loeb (*executive officer*)
Professors: S. E. Bradley, A. Gellhorn (*Delafield Hospital*), F. M. Hanger, Jr., Y. Kneeland, Jr., G. A. Perera, J. V. Taggart

Professor of Biochemistry: K. Meyer
Professors of Clinical Medicine: C. Ragan, J. C. Turner
Clinical Professors: F. R. Bailey, A. L. Barach, H. Southworth
Clinical Professor of Psychiatry: G. E. Daniels
Associate Professors: A. P. Fishman, R. Wegria
Associate Professors of Clinical Medicine: C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), S. C. Werner
Associate Clinical Professors: S. W. Lambert,* W. B. Sherman
Associate Professors of Microbiology: C. Howe, C. Morgan
Assistant Professors: R. J. Cross, A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley
Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg
Assistant Professors of Clinical Medicine: H. Aranow, J. M. Baldwin, Jr., S. W. Cosgriff, F. E. Demartini, A. R. Lamb, Jr., J. H. Laragh, K. L. Pines, H. M. Ranney
Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, S. C. Fisk, M. Goldenberg, M. J. Lepore, P. C. Lloyd, T. B. Russell,* P. B. Sheldon, H. B. Wilcox, Jr.
Associates: G. P. Bradley, A. W. Grokoest, H. O. Heinemann, H. H. Holmes, E. Leifer, E. N. Loeb, R. B. McKittrick, G. W. Melcher, I. Mufson, G. B. Phillips (*Biochemistry*), C. H. Plimpton,* G. M. Turino, H. O. Wheeler
Associates in Biochemistry: P. E. Hochstein, P. Hoffman, A. Linker
Research Associate: H. D. Grossfeld
Research Associate in Biochemistry: G. Cohen
Instructors: S. F. Alexander, C. Alston, A. T. Baker, G. J. Beck, D. N. Brown, R. M. Carey, N. P. Christy, H. P. Colmore, C. Gerbi, G. C. Hennig, G. A. Hyman, R. A. Kritzler, R. W. Lamont-Havers, K. A. McClane, G. H. McCormack, Jr., W. M. Manger, J. A. L. Mathers, E. Middleton, Jr., R. Muller, H. W. Neuberg, A. Sahagian-Edwards, F. H. Shillito, R. Stock, T. L. Tyson, J. E. Ultmann, J. F. Watson, C. R. Wise
Assistants: H. M. Anderson, J. W. Barry, J. T. Beaty, E. H. Bergofsky, M. R. Blumenthal, A. E. Brewer, N. J. Conan, Jr., C. Cooke,* J. A. Coss, Jr., J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, S. Fink, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, D. M. Kanter, M. L. Marinovich, J. Nakano, R. Noble, T. Richter, D. H. Smith, A. I. Snyder, C. J. Tyson, Jr., S. Ulick, C. A. Vicens, J. A. Wood, B. M. Wright, H. Zekert

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards
Professor: A. F. Cournand
Clinical Professor: M. Dinnerstein
Associate Professors: J. M. Jones, J. H. McClement
Associate Clinical Professors: C. R. Gross, H. McL. Riggins, K. J. Thomson
Assistant Professors: W. A. Briscoe, H. W. Fritts
Assistant Professors of Clinical Medicine: M. I. Ferrer, R. Harvey
Assistant Clinical Professors: J. L. Leland, W. H. Stearns
Associates: O. S. Baum, M. E. Campbell, H. H. Coppersmith, L. H. Hellstrom, H. M. Hicks, A. Hoff, F. D. Rossomondo, P. Wermer, C. H. Whitney
Associate in Biochemistry: A. M. Briscoe
Instructors: E. Alpert, R. F. Alsop, E. Bauman, H. S. Collins, R. J. Conroy, W. R.

* On leave.

Cunnick, Jr., A. Davis, B. B. Eichler, H. Fong, B. B. Garthwaite, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, H. Perrone, H. G. Shaffeld, W. J. Sheils, D. G. Simpson, M. B. Smith, A. M. Tunick, L. Warshaw
Assistants: S. C. Alexander, L. L. Davis, L. Fishel, D. L. Hartman, S. N. Heller, A. Minzter, C. R. Ream, C. S. Yongue
Lecturers: M. Kuschner, W. E. Loring

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professors: Q. B. Deming, A. R. Wertheim
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professors of Biochemistry: L. L. Abell, E. H. Mosbach
Associates: H. Colcher, A. W. Feinberg, H. Lax
Associate in Biochemistry: M. M. Daly
Instructor: L. A. Scarrone
Assistants: G. E. Brown, J. G. Edreira, A. Sakamoto, E. Schmatolla

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professor: S. Silver
Assistant Clinical Professors: D. Adlersberg, W. M. Hitzig, M. Mendlowitz, C. B. Rabin, L. R. Wasserman, T. F. Yu
Associate: H. Horn
Lecturers: S. Dack, I. E. Gerber, H. L. Jaffe, F. H. King, F. D. Zeman

At Montefiore Hospital:

Clinical Professors: R. G. Bloch, L. Leiter
Associate Clinical Professors: S. P. Schwartz, L. E. Siltzbach
Assistant Clinical Professors: S. Biloon, H. Gross, A. Jezer, S. Melamed, J. B. Schwedel, I. D. Stein, B. Weingarten
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. G. W. Escher, M. Friedenson, E. Goldberger, J. Harkavy, B. E. Jacobson, D. Laszlo, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, I. L. Rubin, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, R. E. Weston, D. Young

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III
Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison
Associate in Biochemistry: T. Peters, Jr.
Instructors: K. Fremont-Smith, J. C. Mithoefer, W. H. Mook, E. D. Rames

At St. Luke's Hospital:

Associate Clinical Professor: G. J. Coffin
Assistant Clinical Professors: J. G. Hilton, O. R. Jones, W. J. Pyles
Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling
Instructors: R. Case, J. Feltman, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Turner and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Loeb.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Cross and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210.* Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems with a review of the pertinent pharmacology. See *Pharmacology 202.*

Medicine 216—Forensic medicine and medical jurisprudence. Sixteen lectures. Fourth year. Mr. Werne (*from Public Health*).

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

A. *Diabetes.* M. W. F. Floor 2. Limited to six students each morning. Professor Pines.
B. *Thyroid.* F. Floor 10. Limited to six students. Professors Werner and Aranow.
C. *Nephritis and hypertension.* Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

D. *Allergy.* M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
E. *Cardiac.* F. Floor 10. Professor M. I. Ferrer.
F. *Arthritis.* W. F. Floor 10. Limited to four students daily. Professor Ragan.
G. *Combined endocrine.* Tu. Floor 3. Limited to six students. Professor Werner and associates.
H. *Gastrointestinal.* M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230—Differential diagnosis. Fourth year. Professor Hanger.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231–232—Research in medicine. Under the direction of Professor Loeb.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235–236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

ELECTIVE COURSES IN MEDICINE

Medicine 237—Elective course in cardiorespiratory physiology. Fifteen lectures, all classes. Professors Cournand and Richards.

Medicine 239—Elective course in clinical biochemistry. Fall of even-numbered years. Fifteen lectures, all classes. Professor Taggart.

MICROBIOLOGY

John E. Borne Professor of Medical and Surgical Research: H. M. Rose (*executive officer*)

Professor: E. A. Kabat (*Neurology*)

Professor of Bacteriology: C. W. Jungeblut

Associate Professors: S. M. Beiser, G. C. Godman, S. P. Halbert (*Ophthalmology*), C. Howe (*Medicine*), C. Morgan (*Medicine*), B. C. Seegal

Assistant Professors: B. F. Erlanger, S. W. Tanenbaum
Assistant Professor of Biochemistry: I. Mandl
Associates: P. Breitenfeld, S. A. Ellison, A. W. Knox, E. Y. Lasfargues, D. Locatcher-Khorazo (*Ophthalmology*), G. Schiffman (*Neurology*)
Research Associates: A. D. Deitch, I. M. Mountain
Assistants: E. W. Bassett, K. C. Hsu
Lecturer: M. Holden

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Five hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. Five hours per week for twelve weeks. 3 pts. Hours to be arranged.

Microbiology 251FST—Research in problems of immunology and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (*executive officer*)
Professor of Clinical Neurological Surgery: J. E. Scarff
Associate Professor: D. P. Purpura
Associate Professor of Clinical Neurological Surgery: L. A. Mount
Associate Clinical Professor: F. Cramer
Assistant Professor: J. B. Campbell
Assistant Professors of Clinical Neurological Surgery: J. Ransohoff, E. B. Schlesinger
Associate: T. J. Bridges
Research Associate: J. Husby
Instructor: J. W. Correll
Assistants: S. A. Jacobson, C. W. Simpson

NEUROLOGY

Professor: H. H. Merritt (*executive officer*)
Professor of Neuropathology: A. Wolf
Professor of Anatomy: F. A. Mettler
Professor of Biochemistry: D. Nachmansohn
Professor of Microbiology: E. A. Kabat

Associate Professors: H. Grundfest, P. F. A. Hoefer
Associate Professor of Clinical Neurology: S. Carter, D. Sciarra, C. T. Vicale, M. O. Yahr
Associate Professor of Biochemistry: I. B. Wilson
Associate Professor of Neuropathology: D. Cowen
Assistant Professors: R. A. Fishman, E. S. Goldensohn, J. F. Hammill, L. P. Rowland
Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J. Masselink, J. Moldaver
Assistant Professor of Neuropathology: I. H. Feigin
Assistant Clinical Professors: R. M. Brickner, A. M. Frantz, C. C. Hare, M. Silbermann, H. G. Weitzen.
Associates: F. Ansanelli, S. M. Cohen, K. Constable, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, R. Pietri, S. F. Thomas, F. T. Zimmerman
Associate in Biochemistry: H. C. Lawler
Associate in Microbiology: G. Shiffman
Associate in Neuropathology: S. M. Aronson
Associate in Psychiatry: L. R. Hewson
Research Associates: M. V. Bennett, J. Epstein, L. Epstein, S. Ginsburg, H. Hartford, J. R. Reilly, E. H. J. Schoffeniels, A. Weber
Research Associates in Biochemistry: S. Ehrenpreis, F. C. G. Hoskin
Instructors: J. L. O'Brien, G. F. Osler, H. B. Thomson, Jr.
Assistants: W-D. Dettbarn, R. R. Engisch, L. H. Gaelen, R. S. Graham, F. P. Iorio, F. L. Orioli, S. G. Penny, E. D. Weitzman
Research Assistants: B. B. Burgemeister, L. Zablow

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.
Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick
Assistant Clinical Professors: S. Solomon, F. D. Stern
Associates: R. B. Miller, J. H. Scharf
Instructors: B. August, K. D. Barron, E. L. Demuth, R. J. Greenberg, K. Strully

At Mt. Sinai Hospital:

Clinical Professor: M. Bender
Lecturer: H. Strauss

At Rockland State Hospital:

Assistant: J. C. Saunders

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for twenty weeks. Second year. Professors Merritt, and Vicale.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicale.

Neurology 207–208—Neurology: examination of the patient and interpretation of findings. Fifteen hours a week for two weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209–210—Neurology: the diseases of the nervous system. Lectures and demonstrations two hours a week for seven weeks. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241–242—Ward clinical clerkships. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*executive officer*)
Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo
Clinical Professor: V. C. Damon
Associate Professors: A. A. Plentl, G. J. Vosburgh
Associate Professor of Biochemistry: S. Lieberman
Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer
Associate Professor of Clinical Medicine: J. W. Jailer
Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell
Assistant Professor: A. L. Southam
Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, L. B. Shettles, H. Speert, A. J. B. Tillman
Assistant Clinical Professor: J. R. Montgomery
Associates: A. N. Fenton, R. E. Hall, M. D. Laird, D. B. Moore, J. B. Rearden, H. M. M. Tovell
Associate in Biochemistry: S. Solomon
Associate in Psychiatry: L. Gidro-Frank
Research Associates: S. Bader, S. Burstein, H. deRoetth, H. Guthwin, M. E. Long, L. L. Phillips
Instructors: E. A. Friedman, D. J. Grandin, M. J. Gray
Assistants: G. G. Herman, T. J. Parks

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 201–202—Theory and practice of obstetrics and gynecology. Fifty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complications of diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203–204—Fourth year: practical work in obstetrics and gynecology.

The practical work in this obstetrics and gynecology class is divided into six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Professor: J. H. Dunnington (*executive officer*)
Professor of Anatomy: G. K. Smelser
Professor of Biochemistry: Z. Dische
Professor of Clinical Ophthalmology: G. M. Bruce
Clinical Professors: A. B. Reese, M. C. Wheeler
Associate Professor of Microbiology: S. P. Halbert
Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)
Associate Clinical Professors: W. S. Knighton, C. A. Perera
Assistant Clinical Professors: R. N. Berke, J. A. C. Wadsworth
Assistant Professor of Anatomy: G. A. Pappas
Associates: H. D. H. Brown, F. D. Carroll, G. Clark, R. M. Day, J. V. Flack, P. Knapp, G. R. Merriam, F. Payne, E. F. Regan
Associate in Microbiology: D. Locatcher-Khorazo
Research Associates: O. Lowenstein, V. Weimar
Instructors: E. G. Bethke, A. deRoetth, Jr., A. W. Forrest, I. S. Jones, V. Ozanics, M. C. Rittler
Assistants: R. P. Burns, C. J. Campbell, R. C. Collins, A. Donn, F. H. Farrant, I. Loewenfeld, J. W. McTigue
Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201–202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203–204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*executive officer*)
Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin
Clinical Professor: L. A. Lantzounis
Associate Professors of Clinical Orthopedic Surgery: C. T. Ryder, F. M. Smith
Associate Clinical Professor: M. B. Watkins
Assistant Professors of Clinical Orthopedic Surgery: F. S. Craig, S. R. Gaston, C. S. Neer II
Assistant Clinical Professors: E. C. Bragg, R. E. Carroll
Associates: G. B. Ambrose, A. Garcia, D. K. McElroy
Instructors: C. A. L. Bassett, J. W. Fielding, K. C. Francis, A. Papas

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201–202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield.

Orthopedic Surgery 203–204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204–205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205–206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207–208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery participates in the correlative clinics in the first year, with a discussion of fractures, and also presents a series of lectures in connection with *Surgery 102T* and *Anatomy 105FS* in the second year.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*executive officer*)
Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman
Associate Professor of Clinical Otolaryngology: J. Waltner
Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit
Associate: E. B. Bilchick
Instructors: M. Basek, P. Lindenberg, S. Whitfield
Lecturers: J. Eisenson, T. Fay

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman
Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201–202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Basek, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225–226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226–227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Basek, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: H. P. Smith (*executive officer*)
Professor: D. H. Andersen (*Pediatrics*)
Professor of Neuropathology: A. Wolf
Associate Professors: C. Z. Garber, H. D. Kesten, F. V. Lucas, D. M. Spain, E. E. Sproul, W. B. Stewart
Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)
Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)
Assistant Professors: D. W. Benninghoff, W. A. Blanc, D. E. Brown, F. P. Shepard, Jr., G. P. Vennart
Assistant Professor of Biochemistry: H. S. Simms
Assistant Professors of Neuropathology: G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)
Assistant Professor of Oral Pathology: M. Lunin
Associates: B. N. Berg, R. E. Fiol-Rodriques
Associate in Biochemistry: C. R. Harmison
Associate in Neuropathology: L. M. Geller
Research Associates: S. Fiala, H. Kaunitz, L. Zucker
Instructor: E. V. Perrin
Instructor in Neuropathology: J. H. Sung
Assistants: D. N. Brown, D. H. Cowan, M. Cushman, J. DiRe, J. G. Gorman, P. B. Radelat, H. J. VanPeenen III
Lecturer: T. F. Zucker
Lecturer in Medical Illustrating: A. Feinberg

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn
Instructor: C. A. Ashley

At Montefiore Hospital:

Professor: H. M. Zimmerman
Associate Professor: T. H. Spaet
Instructors: J. I. Berkman, R. D. Terry

At Mt. Sinai Hospital:

Professor: H. Popper
Associate Professor: S. Otani
Assistant Professor: L. Strauss
Assistant Professor of Neuropathology: L. Krainer

At Roosevelt Hospital:

Assistant Professor: B. Kalfayan

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. Second year. 14 pts. Professors Lucas, Smith, Stewart, and Vennart, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

Pathology 103FS—Medicine-pathology case study. One hour a week, first and second trimesters. Second year. Members of the Departments of Medicine and Pathology.

This course consists of presentation of patients illustrating diseases studied in *Pathology 101FST* with a discussion of the etiology, lesions, and clinical findings.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251–252—Research in pathology. Credit to be arranged.
Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: R. McIntosh (*executive officer*)
Professor: H. E. Alexander
Professor of Pathology: D. H. Andersen
Associate Professor: C. M. Riley
Clinical Professor: C. D. May
Associate Professor of Clinical Pediatrics: W. A. Silverman
Associate Clinical Professors: H. S. Altman, S. Blumenthal, J. M. Brush, D. S. Damrosch, J. A. Wolff, C. L. Wood

Assistant Professors: P. A. di Sant'Agnese, M. M. Grumbach, R. C. Harris,* G. W. Mellin

Assistant Clinical Professors: W. A. Bauman, R. E. Moloshok, M. Singer

Associates: L. A. Boker, R. W. Culbert, S. P. Griffiths, W. R. Kessler, K. Sprunt

Research Associates: G. Koch, G. Leidy

Instructors: J. B. Ahouse, R. G. Ames, H. Anfanger, S. Blatman, L. S. James (*Anesthesiology*), J. H. Maroney, R. M. Mickey, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, P. S. Strong, D. A. Wilcox, L. F. V. Wilking, Jr., A. G. Wilson

Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., L. J. Cassard, W. M. Chemris, S. J. Cohen, J. A. Costa, C. R. Denning, R. U. Donovan, J. Ducharme, L. G. M. Fox, O. L. Frick, M. J. Gates, B. German, H. Grossman, J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Honan, P. Hudson, M. H. Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, R. B. Mellins, K. M. Metcalf, W. L. Mitchell, H. E. Poch, M. H. Rachelson, R. C. Richards, A. P. Rosen, A. L. Sitarz, W. H. Smith, W. R. Stankewick, D. Stiles, E. Ufford, R. West, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin

Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes

Associate Clinical Professor: S. Karelitz

Instructors: A. L. Florman, D. Gribetz, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201–202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203–204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Riley and staff.

At Babies Hospital.

Student and hospital resident work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207–208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

* On leave.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*executive officer*)
Professor: S.-C. Wang
Associate Professor: W. H. Sawyer
Assistant Professors: H. J. Bartelstone, F. G. Hofmann
Lecturer: J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101ST—General and special pharmacology. One hour lecture or conference, second trimester; four hours lecture or conference and six hours laboratory, third trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine 209–210.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229–230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (*executive officer*)
Professor of Physical Medicine: W. B. Snow
Associate Clinical Professor: M. Hoberman
Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch
Research Associate: J. A. Downey
Instructors: L. Tsu Pai, S-J. Yue
Assistant Professor and Director of Training for Physical Therapists: M. E. Callahan
Assistant Professor and Director of Training for Occupational Therapists: M. L. Franciscus
Assistant Professor of Occupational Therapy: M. Abbott
Associate in Occupational Therapy: D. H. Ericson
Instructor and Associate Director of Training for Physical Therapists: R. Dickinson
Instructor and Associate Director of Training for Occupational Therapists: M. E. Schnebly
Associates in Physical Therapy: M. S. Cover, K. T. San Julian
Instructors in Physical Therapy: S. Brunnstrom, G. P. Jessup, Jr., B. Talmud

Instructors in Occupational Therapy: A. A. Deutsch, J. P. Robinault, E. A. Scully, A. R. Trei, T. L. Wellerson
Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Mt. Sinai Hospital:

Assistant Clinical Professors: W. Bierman, L. H. Wisham

At Manhattan V. A. Hospital:

Associate: M. J. Lota
Instructor: L-C. YenChen

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*executive officer*)
Professor: W. S. Root
Associate Professors: L. T. Cizek, W. L. Nastuk, W. W. Walcott
Assistant Professors: S. Chien, W. R. Loewenstein
Instructors: R. J. Dellenback, L. Levine, G. Muelheims, M. Nocenti, B. A. Olson, R. A. Rawson, G. R. Rowley

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

Physiology 103Fo—Correlative clinic. First year.

See *Anatomy 114FFo.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.
Tu. Th. 3–5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, etc.

Physiology 251–252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*executive officer*), W. S. Langford, I. H. MacKinnon

Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Professor of Psychology: C. Landis

Clinical Professors: G. E. Daniels (*Medicine*), R. B. McGraw*

Associate Professor of Clinical Psychiatry: P. Polatin

Associate Professor of Medical Psychiatry: W. N. Thetford

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: N. Ackerman, V. Bernard, H. Bruch, G. Goldman, E. M. Gruenberg (*Epidemiology*), A. Karush,* K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor of Medical Psychology: A. C. Carr

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: B. H. Balser, J. Cattell, D. Dunton, B. Easser, W. Goldfarb, G. A. Jervis, V. Moses, R. Moulton, B. L. Pacella, R. Senescu, R. Sobel, J. Weber

Associates: G. Baker, W. A. Brooks, R. D. Craig, L. Gidro-Frank, R. Gilder, Jr., M. Glusman, A. Goldfarb, S. Goodman, H. L. Hall, L. R. Hewson (*Neurology*), C. Hogan, S. Karlen, J. P. Lampert, J. Lubart, R. MacKinnon, S. Malitz, M. Naftalin, B. A. Pasquarelli, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, M. Schreiber, D. Shapiro, E. S. Tauber, R. Taylor, M. P. Torre (*Public Health*), R. J. Weiss, E. Welsch, V. Wilking

Associate in Biochemistry: G. Alexander

Research Associates: G. B. Baroff, B. P. Dohrenwend, A. Falek, G. Gold, M. Gold, L. F. Jarvik, L. B. Kalinowsky, L. M. Kopeloff, B. Kohlsaat, J. D. Rainer, L. Ross, J. Rutschmann, J. Schachter, K. Sterling

Research Associate in Biochemistry: M. Berger

Instructors: M. J. Aronson, A. B. Ballard, S. Berl, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, J. Cederquist, H. Chartock, L. Cobliner, L. Coleman, J. A. Cook, A. Cooper, Z. DeFries, H. D. DeWitt, D. J. Dillon, D. B. Douglas, S. Dunaif, R. W. Evans, M. Farnham, O. Frankel, S. Furst, W. Gaylin, I. Harrison, R. Hartogs, W. Hochstetter, E. Huff, M. J. D. Jameson, H. McHugh, R. J. Mearin,* T. Meltzer, A. Messer, J. O'Connor, J. F. Oliven, A. H. Polatin, H. Potter, K. F. Prescott, P. E. Ryberg, L. Scheinman, J. Sheps, D. E. Sobel, W. Stewart, S. Stirt, M. O. Strahl, C. D. Tait, R. S. Ward, W. R. Watson, J. Weinless, B. Wilkens

Assistants: K. Z. Altshuler, A. R. Kaplan, A. M. Mesnikoff, D. Sank, J. S. Schachter, M. H. Wodin

Lecturers: H. G. Birch, H. Brill, H. Davidson, K. Goldstein, A. Kardiner, L. S. Kubie, S. R. Lesser, D. Levy, J. A. Millet, S. Rado, H. B. Richardson

At Creedmoor State Hospital:

Assistant Clinical Professor: J. R. Whittier

At Manhattan State Hospital:

Assistant Clinical Professor: N. E. Stein

Instructors: H. C. B. Denber, I. Kesselbrenner

* On leave.

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman
Associate Clinical Professor: H. I. Weinstock
Instructors: L. Linn, B. C. Meyer
Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline
Research Associate: L. P. Carini
Research Assistants: Y. Taketomo, P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton

At the Institute for the Crippled and Disabled:

Instructors: M. Z. Fuchs, L. A. Gelb, A. B. Szalita-Pemow

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Twenty-two one-hour lectures and demonstrations concerned with the genetic, family, and cultural processes underlying healthy behavior, with the nature of anxiety, with the psychological methods of adaptation to anxiety, and with processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton; Dr. Brooks.

Psychiatry 102S—Psychopathology. Eleven one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, MacKinnon, Thetford, and Weiss, and members of the faculty.

Psychiatry 203–204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Horwitz, Langford, McGraw, MacKinnon, Polatin, Senescu, and Stein, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219–220—Psychometric methods. Forenoons, twice a week. Professors Carr and Thetford.

Practical exercises in mental measurements. Limited to two students.

Psychiatry 221–222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

ELECTIVE GRADUATE COURSE IN PSYCHIATRY

Psychiatry 223—Female and child psychiatry. Full time, September to June. Professors Kolb and MacKinnon, and staff. Fee: $800.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Public Health Practice:

Joseph R. DeLamar Professor: W. C. Spring, Jr.
Associate Professor: M. W. Barnard
Adjunct Associate Professors: W. R. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James
Adjunct Associate Professor of Dental Public Health Practice: A. Bushel
Assistant Professor: A. J. Beckmann
Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*executive officer*)
Visiting Professor of Medical Sociology: E. A. Suchman
Associate Professors of Administrative Medicine: C. C. Clay, J. Elinson
Adjunct Associate Professors of Administrative Medicine: O. W. Anderson, M. Cherkasky
Adjunct Associate Professor of Hospital Administration: B. C. MacLean
Assistant Professors of Administrative Medicine: H. Baumgarten, Jr., M. P. Shorney, F. W. van Dyke
Adjunct Assistant Professors of Administrative Medicine: E. M. Bluestone, G. A. Silver
Research Associates in Administrative Medicine: J. E. Bryan, R. B. Heiser, M. C. Maloney, C. F. Muller, J. J. Williams
Assistants in Administrative Medicine: H. Alksne, V. M. Brown, M. N. Glasser, J. K. Lane, M. J. Robertson, J. G. Sachar
Assistant in Hospital Administration: G. F. Billington
Administrative Assistant: L. Gerold

Public Health Education:

Professor: G. Rosen
Adjunct Assistant Professor: I. S. Shapiro

Biostatistics:

Professor: J. W. Fertig
Assistant Professors: A. P. Berger, G. L. Saiger
Research Associate: N. W. Chilton
Instructor: P. B. Michelsen

Community Psychiatry:

Associate Clinical Professors of Psychiatry: V. W. Bernard, E. M. Gruenberg
Associate in Psychiatry: M. P. Torre

Epidemiology:

Professor: E. G. Clark
Adjunct Associate Professor: S. Frant
Assistant Professors: A. C. Gelman, M. D. Schweitzer
Assistant: A. B. Ritterband

Nutrition:

Professor: W. H. Sebrell, Jr.

Occupational Medicine:

Professor: L. J. Goldwater
Adjunct Associate Professor: I. R. Tabershaw
Adjunct Assistant Professor: M. Kleinfeld

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown
Associate Professor of Medical Entomology: R. W. Williams
Adjunct Assistant Professor: H. B. Shookhoff
Assistant Professor of Parasitology: K. L. Hussey
Instructors: K. G. Dwork, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, G. Bugbee, H. R. Cohen, E. de Armas, P. M. Densen, W. R. Donovan, D. J. Doran, C. L. Erhardt, R. T. Fisher, R. S. Goodhart, M. Greenberg, A. E. Grosso, E. Hayt, H. H. Hughes, M. A. Jacobs, N. H. Jolliffe, R. N. Kerst, J. H. Kinnaman, G. W. Larimore, S. S. Lifson, J. Masur, B. F. Mattison, J. M. May, E. A. Mosso, B. B. Palmer, M. J. Plishner, M. Radom, J. W. G. Rehn, C. G. Roswell, A. J. J. Rourke, L. Schneider, M. E. Segal, R. F. Sikes, J. E. Silson, R. P. Sloan, J. E. Snyder, D. K. Tuller, S. B. Weinberg, B. Werne, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 201—Statistical analysis of medical and public health data. One hour a week for ten weeks. First year. Professor Fertig.

Public Health 101S—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203–204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology,

nutrition, occupational medicine, parasitology, etc. Fourth-year students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

RADIOLOGY

Professors: J. Caffey, G. Failla (*Physics*), H. W. Jacox, E. H. Quimby (*Physics*), W. B. Seaman (*executive officer*)

Associate Professors: R. J. Guttmann, M. M. Kligerman, H. H. Rossi (*Physics*), R. Rugh (*Biology*), J. M. Taveras, J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, L. C. Doubleday, K. Ellis, G. S. Schwarz, N. duV. Tapley

Associates: C. B. Braestrup, L. Rottenberg, R. Schlaeger

Instructors: M. Alpert, M. H. Becker, A. D. Crosett, Jr., F. M. Cummins, W. J. Esposito, R. J. Hochstim, J. L. Jarvis, D. W. Johnson, S. H. March, J. M. Moynahan, R. S. Yalow

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Hospital for Joint Diseases:

Associate: M. M. Pomeranz

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

At Montefiore Hospital:

Associate Clinical Professor: S. Fineman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201–202—Diagnostic radiology. One hour a week for twenty-two weeks. Third year. Professors Kligerman, Doubleday, and Ellis, and Drs. Alpert, Becker, Crosett, Cummins, Hochstim, Jarvis, Johnson, Marsh, and Moynahan.

In this course typical films are demonstrated during medical and surgical clerkships (*Medicine 201–202* and *Surgery 204–205*).

Radiology 203–204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Caffey, Seaman, Taveras, and Wells, and Dr. Alpert.

Radiology 205—Radiotherapy. Three hours. Third and fourth years. Professors Jacox and Kligerman. Two lectures given during the combined clinic series (*Medicine 205–206*).

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox and Kligerman.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Ellis, Kligerman, Seaman, and Taveras.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Kligerman, Quimby, Rossi, Rugh, and Seaman, and Mr. Braestrup and Mr. Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*executive officer*)

Professors: V. K. Frantz, R. Lattes

Professors of Clinical Surgery: C. D. Haagensen, H. D. Harvey, R. N. Schullinger, L. W. Sloan

Clinical Professor: R. H. Wylie

Associate Professor: N. Lane

Associate Professor of Anatomy: M. R. Murray

Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, R. A. Deterling, R. H. E. Elliott, Jr., D. V. Habif, E. L. Howes, M. R. Porter, T. V. Santulli

Associate Clinical Professors: H. S. F. Cooper, J. Ferrer

Assistant Professors of Clinical Surgery: G. F. Crikelair, R. B. Hiatt, D. M. Ju, F. R. McAllister, R. L. Moore, G. Sanger, J. Scudder, E. B. Self

Assistant Clinical Professors: E. N. Goodman, A. Himmelstein

Research Associates: B. Johnson, G. Katz, M. S. Parshley, E. Peterson

Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., C. R. Feind, C. W. Findlay, F. P. Herter, H. F. Luddecke, W. B. Ober, L. Ozzello, J. Prudden, N. B. Thomson, A. B. Voorhees, S. G. Weissman, P. D. Wiedel, M. Wolff

Research Assistants: H. H. Benitez, C. Morris, M. S. Schwartz

Assistant: J. R. Malm

At Bellevue Hospital:

Clinical Professor: K. M. Lewis
Associate Clinical Professor: H. C. Maier
Assistant Clinical Professors: M. Chamberlain, R. S. Mueller, D. M. Weeks
Associates: J. F. Bagg, W. W. Heroy, H. A. Kingsbury, A. Lambert, T. S. Winslow
Instructors: J. Ford, P. Kirschner, K. M. Lewis, Jr., H. C. Reusch, R. K. Snyderman, E. G. Stanley-Brown, W. A. Wichern, J. M. Wilson, Jr.
Assistants: M. Moley, E. T. Quash

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers
Assistant Clinical Professors: A. Jaretzki III, J. Mithoefer

At Mt. Sinai Hospital:

Clinical Professor: I. D. Baronofsky

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson
Associate Clinical Professors: F. H. Amendola, J. E. Thompson
Instructor: J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel
Associate Clinical Professors: A. E. W. Ada, P. C. Morton
Assistant Clinical Professors: H. F. Fitzpatrick, R. B. Stark
Instructors: R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery 205–206.*) Six hours a week for ten weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery 211–212, Radiology 201–202,* and *Orthopedic Surgery 203–204.*) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209–210—Outpatient clinical clerkships. Two months, combined with *Medicine 207–208.* Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211–212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery 204–205,* five and a half weeks. Third year. Professor Frantz.

Surgery 213–214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217–218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine 221–222.*

Surgery 219–220—Diagnosis of cancer. Twelve lectures. Fourth year. Professor Haagensen.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221–222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Deterling and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*executive officer*)
Professor of Clinical Urology: G. W. Fish
Associate Clinical Professors: C. T. Hazzard, P. B. Hudson, M. M. Melicow, J. N. Robinson*
Assistant Professor of Biochemistry: T. Price
Assistant Professors of Clinical Urology: T. J. Sullivan, H. H. Zinsser
Associates: R. F. Seidel, T. J. Sullivan, R. J. Veenema, R. C. Yeaw
Associate in Biochemistry: M. E. Lombardo
Research Associate: H. Seneca
Instructors: S. Pulrang, A. T. Willetts
Assistants: J. E. Bowers, S. B. Braham, P. F. Crutchlow, A. L. Dean, J. T. Donovan, C. A. Furey, Jr., M. B. Pincus, M. J. Pirossi, A. C. Uson, T. A. Viscelli, F. Yandel, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201–202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professors Lattimer and Fish, and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

* On leave.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
G. Failla, *Professor of Radiology (Physics)*
Edith H. Quimby, *Professor of Radiology (Physics)*
G. E. Kimball, *Professor of Chemistry*
D. Rittenberg, *Professor of Biochemistry*
W. S. Root, *Professor of Physiology*
T. Hayashi, *Associate Professor of Zoology*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring session. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1958 and in alternate years thereafter.*

W. F. 4–6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115–116, Mathematics 104, Chemistry 91–92,* and *Zoology 141,* or their equivalents.

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

Gross Anatomy. Required: *Textbook of Anatomy,* Cunningham, $17.50; *Atlas of Descriptive Human Anatomy, Vol. III, Sobotta,* $17.50; Dorland's or Stedman's *Medical Dictionary,* $12.50.

Microscopic Anatomy. Required: *Bailey's Textbook of Histology* (14th ed.). Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, $11.

Neuroanatomy. Required: *Human Neuroanatomy* (3d ed.), Strong and Elwyn, $7.50; *Laboratory Manual for Neuroanatomy.* Recommended but not required: *Neuroanatomy* (2d ed.), Mettler, $10.50; *The Anatomy of the Nervous System* (9th ed.), Ranson and Clark, $8.50.

Embryology. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, $9.50; *Human Embryology* (2d ed.), Patten, $12.

Biochemistry. Required: *Principles of Biochemistry,* White, Handler, Smith, Stetten, $15; *Laboratory Manual* (1956), Staff, $2.50.

Dermatology. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, $13.50; *Practical Dermatology,* Lewis, $7.50; *Syphilis, Its Course and Management,* Thomas, $5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, $6.50.

Medicine. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, $3.75; *Clinical Hematology,* Wintrobe, Lea, and Febiger (3d ed.), $15; *Biochemistry of Disease* (2d ed.), Bodansky, Macmillan, $12; *Textbook of Medicine* (8th ed.), Cecil and Loeb, $15; *Principles of Internal Medicine,* Harrison, $16; *Classical Descriptions of Disease,* Major, $8.50. Reference textbooks: *Loose-Leaf Medicine,* Oxford, $150.

Microbiology. Required: *Laboratory Manual in Microbiology and Immunology,* $3; *Zinsser Bacteriology* (11th ed.), edited by Smith and Conant, $12.00.

Neurology. Required: *The Clinical Examination of the Nervous System,* Monrad-Krohn, $7.50, or *The Neurologic Examination,* DeJong, $18; and one of the following: *Textbook of Neurology,* Merritt, $12.50; *Neurology,* Grinker, $12.50; *A Textbook of Clinical Neurology,* Wechsler, $9.50; *Diseases of the Nervous System,* Brain, $8.50. Recommended but not required: *Basis of Clinical Neurology,* Brock, $7; *Fundamentals of Clinical Neurology,* Merritt, Mettler and Putnam, $6; *Neuroanatomy,* Mettler, $10.50; *Diseases of the Nervous System in Infancy, Childhood and Adolescence,* Ford, $18.50.

Obstetrics and Gynecology. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, $9. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, $12.50.

Ophthalmology. Recommended: *May's Diseases of the Eye* (21st ed. rev. by C. A. Perera), $6; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, $7.50.

Orthopedic Surgery. Required: *Hand Book of Orthopedic Surgery,* St. Louis, Mosby, 1948; *Manual of Orthopaedic Surgery,* American Orthopedic Association; *A Manual of Fractures and Dislocations,* Stimson, $3.25. Recommended but not required: *The Management of Fractures,* Key and Conwell, $15; *Fractures* (2 vols.), Watson-Jones, $20.

Otolaryngology. Required (one of the following): *Specialties in General Practice* (chapters on ear, nose, and throat), Cecil, $15; *Basic Otolaryngology,* F. Lederer and A. R. Hollender, $6.75.

Pathology. Required for *101FST* (one of the following): *Textbook of Pathology,* Moore, $13; *Textbook of Pathology,* Boyd, $12.50; *Human Pathology,* Karsner, $15; *Pathology,* Anderson, $16.

Pediatrics. Required (one of the following): *Holt Pediatrics,* Holt and McIntosh, $15; *Textbook of Pediatrics,* W. E. Nelson, $15. Recommended but not required: *Growth and Development of Children,* Watson and Lowrey (2d ed.), $7; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, $28; *Common Contagious Diseases,* Stimson and Hodes, $8.50.

Pharmacology. Required: *The Pharmacological Basis of Therapeutics,* Goodman and Gilman (2d ed.), $17.50.

Physiology. Required: *Philip Bard's Medical Physiology,* $14.

Psychiatry. Required: *Textbook of Psychiatry* (5th ed.), Noyes and Kolb, $7. Recommended but not required: *Introduction to Psychiatry,* English and Finch, 1954.

Public Health. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, $12.50; *Preventive Medicine and Public Health* (2d ed., 1956), W. G. Smillie, $7.50; *Preventive Medicine for the Doctor in the Community,* H. R. Leavell and E. G. Clark, $10; *Rosenau, Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, $15.

Radiology. Recommended but not required: *Outline of Roentgen Diagnosis,* Rigler, $6.50; *Radiology for Medical Students,* Hodges, Lampe, and Holt, $6.75.

Surgery. Required: *Introduction to Surgery,* Frantz and Harvey, $2.50. Recommended but not required: *Textbook of Surgery* (4th ed.), Christopher, $12; *General Surgery* (5th ed.), Cole and Elman, $11; *Inhalation Anesthesia,* Guedel, $4; *Surgery,* Homans, $8.

Urology. Recommended but not required: *General Urology,* Smith, $4.50; *Principles of Urology,* Campbell, $9.50.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $381 to $617. Each student should also provide himself with a substage lamp. Microscopes may be rented at $6 a month or $52 for a school year. A limited supply of binoculars are available also for rental at $12 a month, or $100 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS INCLUDING THOSE IN THE GRADUATE PROGRAM

ABBOTT, MARGUERITE, *Assistant Professor of Occupational Therapy;* B.S., Tufts, 1947; O.T.R., Boston, 1925

ABELL, LIESE L., *Assistant Professor of Biochemistry;* Ph.D., Frankfurt, 1935

ACKERMAN, NATHAN, *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1929; M.D., 1933

ADA, ALEXANDER E. W., *Associate Clinical Professor of Surgery;* B.A., Queen's (Ontario), 1923; M.D., 1926

ADLERSBERG, DAVID, *Assistant Clinical Professor of Medicine;* M.D., Vienna, 1921

AGATE, FREDERICK J., *Associate Professor of Anatomy;* A.B., Columbia, 1932; Ph.D., 1949

ALEXANDER, HATTIE E., *Professor of Pediatrics;* A.B., Goucher, 1923; M.D., Johns Hopkins, 1930

ALLANACH, MARY E., *Assistant Professor of Nursing;* B.S., Columbia, 1932; A.M., 1937

ALTMAN, HARRY S., *Associate Clinical Professor of Pediatrics;* M.D., New York University, 1921

ALTMANN, FRANZ, *Clinical Professor of Otolaryngology;* M.D., Vienna, 1925

AMENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery;* B.S., College of the City of New York, 1923; M.D., Cornell, 1927

AMOLS, WILLIAM, *Assistant Professor of Clinical Neurology;* A.B., New York University, 1938; M.D., 1942

ANDERSEN, DOROTHY H., *Professor of Pathology;* A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935

ANDERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine;* A.B., Wisconsin, 1937; A.M., 1938; A.B., Michigan, 1940; Ph.D., 1948

ANTELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice;* M.D., Long Island College, 1926; M.P.H., Harvard, 1939

ANTENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine;* B.S., College of the City of New York, 1926; M.D., Columbia, 1930

APGAR, VIRGINIA, *Professor of Anesthesiology;* A.B., Mt. Holyoke, 1929; M.D., Columbia, 1933

APPLEBAUM, EDMUND, *Associate Professor of Dental Anatomy;* D.D.S., New York College of Dentistry, 1922

ARANOW, HENRY, *Assistant Professor of Clinical Medicine;* A.B., Harvard, 1935; M.D., Columbia, 1938

ARDEN, HOWARD A., *Associate Professor of Dentistry;* B.S., Fordham, 1943; D.D.S., Columbia, 1946

AYERS, HERBERT D., Jr., *Associate Clinical Professor of Dentistry;* A.B., Columbia, 1929; D.D.S., 1931

BACHMAN, ARNOLD L., *Assistant Professor of Radiology;* B.S., New York University, 1931; M.D., 1934

BAILEY, FREDERICK R., *Clinical Professor of Medicine;* A.B., Princeton, 1924; M.D., Johns Hopkins, 1928

BAKER, DANIEL C., Jr., *Clinical Professor of Otolaryngology;* A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939

BALDWIN, JOHN M., Jr., *Assistant Professor of Clinical Medicine;* M.D., Columbia, 1939

BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry;* A.B., Rochester, 1926; A.M., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937

BARACH, ALVAN L., *Clinical Professor of Medicine;* M.D., Columbia, 1919

BARKER, HAROLD G., *Associate Professor of Clinical Surgery;* A.B., Utah, 1939; M.D., Pennsylvania, 1943

BARKER, LESLIE P., *Associate Clinical Professor of Dermatology;* M.D., Columbia, 1927

BARNARD, MARGARET W., *Associate Professor of Public Health Practice;* A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935

BARONOFSKY, IVAN D., *Clinical Professor of Surgery;* B.S., California, 1938; Ph.D., Minnesota, 1947; M.D., Marquette, 1943

BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology;* B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945

BAUMAN, WILLIAM A., *Assistant Clinical Professor of Pediatrics;* B.S., Harvard, 1943; M.D., Columbia, 1947

BAUMGARTEN, HAROLD, Jr., *Assistant Professor of Administrative Medicine;* A.B., Willamette, 1945

BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice;* A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945

BEGG, CHARLES F., *Assistant Professor of Pathology;* A.B., Boston, 1935; M.D., Harvard, 1939

BEHRE, JEANETTE A., *Assistant Professor of Biochemistry;* A.B., Vassar, 1913; Ph.D., Cornell, 1920

BEISER, SAM M., *Associate Professor of Microbiology;* Ph.D., Columbia, 1951

BENDER, MORRIS B., *Clinical Professor of Neurology;* M.D., Pennsylvania, 1931

BENFIELD, JAMES W., *Assistant Clinical Professor of Dentistry;* D.D.S., Columbia, 1945

BENNINGHOFF, DANIEL W., *Assistant Professor of Pathology;* A.B., Yale, 1949; M.D., Columbia, 1953

BERGER, AGNES P., *Assistant Professor of Biostatistics;* A.M., Columbia, 1944; Ph.D., Budapest, 1939

BERKE, RAYNOLD N., *Assistant Clinical Professor of Ophthalmology;* A.B., Minnesota, 1926; M.B., 1928; M.D., 1929

BERNARD, VIOLA W., *Associate Clinical Professor of Psychiatry;* B.S., New York University, 1933; M.D., Cornell, 1936

BEUBE, FRANK E., *Clinical Professor of Dentistry;* L.D.S., D.D.S., Toronto, 1930

BICKERMAN, HYLAN, *Associate Clinical Professor of Medicine;* A.B., Columbia, 1934; M.D., New York University, 1939

BIERMAN, WILLIAM, *Assistant Clinical Professor of Physical Medicine and Rehabilitation;* A.B., Columbia, 1915; M.D., 1917

BILOON, SOL, *Assistant Clinical Professor of Medicine;* B.S., College of the City of New York, 1915; M.D., Cornell, 1919

BLAKEMORE, ARTHUR H., *Associate Professor of Clinical Surgery;* B.S., William and Mary, 1918; M.D., Johns Hopkins, 1922

BLANC, WILLIAM A., *Assistant Professor of Pathology;* B.A., College of Geneva, 1940; M.D., University of Geneva, 1947; Ph.D., 1952

BLOCH, ROBERT G., *Clinical Professor of Medicine;* M.D., Munich, 1921

BLUESTONE, EPHRAIM M., *Adjunct Assistant Professor of Administrative Medicine;* B.S., Columbia, 1913; M.D., 1916

BLUMENTHAL, SIDNEY, *Associate Clinical Professor of Pediatrics;* B.S., Iowa, 1933; M.D., 1933

BORDLEY, JAMES, III, *Clinical Professor of Medicine;* Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927

BRADLEY, STANLEY E., *Professor of Medicine;* A.B., Johns Hopkins, 1934; M.D., Maryland, 1938

BRAGG, EVERETT C., *Assistant Clinical Professor of Orthopedic Surgery;* A.B., Cornell, 1936; M.D., 1940

BRICKNER, RICHARD M., *Assistant Clinical Professor of Neurology;* B.S., Columbia, 1917; M.D., 1923

BRISCOE, WILLIAM A., *Assistant Professor of Medicine;* B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951

BROWN, DONALD E., *Assistant Professor of Pathology;* M.D., Harvard, 1943

BROWN, HAROLD W., *Professor of Parasitology;* A.B., Kalamazoo, 1924; M.S., Kansas State, 1925; Sc.D., Johns Hopkins, 1928; M.D., Vanderbilt, 1933; D.P.H., Harvard, 1936; LL.D. (*hon.*), Puerto Rico, 1954

BROWN, NORTON S., *Assistant Clinical Professor of Medicine;* A.B., Stanford, 1925; M.D., 1928

BRUCE, GORDON M., *Professor of Clinical Ophthalmology;* B.A., M.D., and C.M., Dalhousie, 1925; D.Ophth., Oxford, 1928; Med.Sc.D., Columbia, 1934

BRUCH, HILDE, *Associate Clinical Professor of Psychiatry;* B.A., Muenchen-Gladbach, 1923; M.D., Freiburg, 1929

BRUENN, HOWARD G., *Assistant Clinical Professor of Medicine;* A.B., Columbia, 1925; M.S., 1933; Med.Sc.D., 1934; M.D., Johns Hopkins, 1929

BRUMFIELD, WILLIAM R., *Adjunct Associate Professor of Public Health Practice;* B.S., Virginia Polytechnic, 1926; M.D., Virginia, 1930; M.P.H., Johns Hopkins, 1935

BRUSH, JOHN M., *Associate Clinical Professor of Pediatrics;* B.S., Princeton, 1921; M.D., Columbia, 1925

BRZUSTOWICZ, STANISLAW H., *Assistant Clinical Professor of Dentistry;* B.S., St. Johns, 1940; D.D.S., Columbia, 1943

BUDOWSKY, JACK, *Associate Clinical Professor of Dentistry; D.D.S.,* Columbia, 1943

BUNDRANT, THEODORE M., *Associate Clinical Professor of Dentistry;* D.D.S., Howard, 1929

BUSHEL, ARTHUR, *Adjunct Associate Professor of Dental Public Health Practice;* A.B., Brooklyn, 1940; D.D.S., Columbia, 1943; M.P.H., 1947

BYSSHE, STANLEY M., *Associate Professor of Clinical Obstetrics and Gynecology;* A.B., Harvard, 1927; M.D., 1931

CAFFEY, JOHN, *Professor of Radiology;* A.B., Michigan, 1916; M.D., 1919

CAHN, LESTER R., *Associate Professor of Oral Pathology;* D.D.S., New York College of Dentistry, 1918

CAIN, EDWARD A., Jr., *Associate Professor of Dentistry;* B.S., Fordham, 1942; D.D.S., Columbia, 1945

CALLAHAN, MARY E., *Assistant Professor of Physical Therapy;* R.N., Clinton Hospital, 1937; R.P.T., Posse College, 1940; A.M., Columbia, 1955

CAMPBELL, JAMES B., *Assistant Professor of Neurological Surgery;* A.B., Harvard, 1931; M.D., 1935

CARDEN, GEORGE A., Jr., *Assistant Clinical Professor of Medicine;* Ph.B., Yale, 1931; M.D., 1935

CARPENTER, MALCOLM B., *Associate Professor of Anatomy;* A.B., Columbia, 1943; M.D., Long Island, 1947

CARR, ARTHUR C., *Assistant Professor of Medical Psychology;* Ph.D., Chicago, 1952

CARROLL, ROBERT E., *Assistant Clinical Professor of Orthopedic Surgery;* A.B., Yale, 1938; M.D., 1942

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TAPLEY, DONALD F., *Assistant Professor of Medicine;* B.S., Acadia, 1948; M.D., Chicago, 1952

TAPLEY, NORAH DUV., *Assistant Professor of Radiology;* A.B., Mount Holyoke, 1945; M.D., Columbia, 1949

TAUSIG, DANIEL P., *Assistant Professor of Anesthesiology;* A.M., Columbia, 1933; M.D., 1937

TAVERAS, JUAN M., *Associate Professor of Radiology;* B.S., Normal School, Santiago, 1937; M.D., Santiago, 1943; M.D., Pennsylvania, 1949

TAYLOR, GURNEY, *Assistant Clinical Professor of Medicine;* A.B., Williams, 1925; M.D., Pennsylvania, 1930

TAYLOR, HOWARD C., *Professor of Obstetrics and Gynecology;* Ph.B., Yale, 1920; M.D., Columbia, 1924

THOMAS, E. DONNALL, *Associate Clinical Professor of Medicine;* A.B., Texas, 1941; A.M., 1943; M.D., Harvard, 1946

THOMPSON, JAMES E., *Associate Clinical Professor of Surgery;* A.B., Texas, 1924; M.D., 1927

THOMSON, K. JEFFERSON, *Associate Clinical Professor of Medicine;* M.D., Harvard, 1931

TILLMAN, ALVIN J. B., *Assistant Professor of Clinical Obstetrics and Gynecology;* A.B., Columbia, 1924; M.D., 1927

TRUSSELL, RAY E., *Joseph R. DeLamar Professor of Administrative Medicine; Associate Dean (Public Health);* A.B., Iowa, 1936; M.D., 1941; M.P.H., Johns Hopkins, 1947

TUOTI, FERDINAND A., *Assistant Clinical Professor of Dentistry;* D.M.D., Harvard, 1928

TURNER, JOSEPH C., *Professor of Clinical Medicine;* A.B., Columbia, 1929; M.D., 1933; Med.Sc.D., 1940

VAN DYKE, FRANK W., *Assistant Professor of Administrative Medicine;* A.B., Union College, 1939; M.S., Columbia, 1954

VAN DYKE, HARRY B., *David Hosack Professor of Pharmacology;* B.S., Chicago, 1918; Ph.D., 1921; M.D., Rush, 1923

VENNART, GEORGE P., *Assistant Professor of Pathology;* A.B., Wesleyan, 1948; M.D., Rochester, 1953

VERLIN, WILLIAM A., *Assistant Clinical Professor of Dentistry;* A.B., Columbia, 1929; D.D.S., 1931

VICALE, CARMINE T., *Associate Professor of Clinical Neurology;* A.B., New York University, 1929; M.D., 1933

VON LACKUM, WILLIAM H., *Assistant Clinical Professor of Orthopedic Surgery;* B.S., Iowa, 1916; M.D., 1918; Med.Sc.D., Columbia, 1935

VOSBURGH, GILBERT J., *Associate Professor of Obstetrics and Gynecology;* A.B., Princeton, 1938; M.D., Johns Hopkins, 1942

WADSWORTH, JOSEPH A. C., *Assistant Clinical Professor of Ophthalmology;* B.S., Davidson, 1935; M.D., Duke, 1939

WAELSCH, HEINRICH B., *Professor of Biochemistry;* M.D., Prague, 1929; Ph.D., 1930

WALCOTT, WILLIAM W., *Associate Professor of Physiology;* A.B., Yale, 1933; Ph.D., Columbia, 1944

WALTNER, JULES, *Associate Professor of Clinical Otolaryngology;* M.D., University of Debrecen (Hungary), 1933

WANG, SHIH-CHUN, *Professor of Pharmacology;* B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940

WASSERMAN, LOUIS R., *Assistant Clinical Professor of Medicine;* A.B., Harvard, 1931; M.D., Rush, 1935

WATKINS, MELVIN B., *Associate Clinical Professor of Orthopedic Surgery;* A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936

WEBER, JOHN, *Assistant Clinical Professor of Psychiatry;* A.B., Duke, 1939; M.D., Yale, 1943

WEEKS, DAVID M., *Assistant Clinical Professor of Surgery;* M.D., Michigan, 1927

WÉGRIA, RENÉ, *Associate Professor of Medicine;* M.D., Liège, 1936; Med.Sc.D., Columbia, 1945

WEINGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine;* M.D., Frankfort, 1922

WEINSTOCK, HARRY I., *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1920; M.D., 1923

WEISS, BENJAMIN, *Assistant Professor of Biochemistry;* B.S., Iowa, 1944; Ph.D., Illinois, 1949

WEITZEN, HYMAN G., *Assistant Clinical Professor of Neurology;* A.B., New York University, 1934; M.D., 1938

WELLS, JOSEPHINE S., *Associate Professor of Radiology;* A.B., Barnard, 1932; M.D., Columbia, 1938

WERNER, SIDNEY C., *Associate Professor of Clinical Medicine;* A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937

WERTHEIM, ARTHUR R., *Associate Professor of Medicine;* A.B., Dartmouth, 1935; M.D., Jefferson, 1939

WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology;* A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938

WHITMAN, CLIFFORD L., *Assistant Clinical Professor of Dentistry;* D.D.S., Maryland, 1927

WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry;* A.B., Harvard, 1939; M.D., Columbia, 1943

WILCOX, ELIZABETH, *Assistant Professor of Nursing;* A.B., Mount Holyoke, 1924

WILCOX, HERBERT B., JR., *Assistant Clinical Professor of Medicine;* A.B., Yale, 1930; M.D., Columbia, 1934

WILLIAMS, ROGER W., *Associate Professor of Medical Entomology;* B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947

WILSON, IRWIN B., *Associate Professor of Biochemistry;* B.S., College of the City of New York, 1941; A.M., Columbia, 1947; Ph.D., 1948

WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation;* B.S., New York University, 1938; M.D., Chicago, 1943

WOLCOTT, DELPHINE, *Assistant Professor of Nursing;* B.S., Columbia, 1926

WOLF, ABNER, *Professor of Neuropathology;* A.B., Columbia, 1923; M.D., 1926

WOLF, BERNARD S., *Associate Clinical Professor of Radiology;* B.S., New York University, 1932; M.D., 1936

WOLFF, JAMES A., *Associate Clinical Professor of Pediatrics;* A.B., Harvard, 1935; M.D., New York University, 1940

WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics;* B.S., New York University, 1926; M.D., Yale, 1930

WOODMAN, DE GRAAF, *Clinical Professor of Otolaryngology;* B.S., Cornell, 1917; M.D., 1926

WYLIE, ROBERT H., *Clinical Professor of Surgery;* Ph.B., Yale, 1927; M.D., Columbia, 1931

YAHR, MELVIN D., *Associate Professor of Clinical Neurology;* A.B., New York University, 1939; M.D., 1943

YU, T'SAI-FAN, *Assistant Clinical Professor of*

Medicine; B.A., Ginling College, 1932; M.D., Peiping Union Medical College, 1936

ZAMENHOF, STEPHEN, *Associate Professor of Biochemistry;* M.E., Warsaw Polytechnic, 1933; D.Tech.Sc., 1936; Ph.D., Columbia, 1949

ZEGARELLI, EDWARD V., *Edward S. Robinson Professor of Dentistry;* A.B., Columbia, 1934; D.D.S., 1937; M.S., Chicago, 1942

ZIMMERMAN, HARRY M., *Professor of Pathology;* B.S., Yale, 1924; M.D., 1927

ZINSSER, HANS H., *Assistant Professor of Clinical Urology;* B.S., Harvard, 1938; M.D., Columbia, 1942

ZINTEL, HAROLD A., *Clinical Professor of Surgery;* B.S., Akron, 1934; M.D., Pennsylvania, 1938

ZUBIN, JOSEPH, *Professor of Medical Psychology;* A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1932

SLANETZ, CHARLES A., *Curator of Animal Husbandry;* B.S., Connecticut, 1922; M.S., 1923; Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 27 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1958

Allen, John L.—Presbyterian Hospital, New York City
Ames, Richard P.—Boston City Hospital, Boston, Mass.
Arida, Edward J.—St. Luke's Hospital, New York City
Aron, Alan M.—Grace-New Haven Hospital, New Haven, Conn.
Ashworth, John S.—King's County Hospital, Brooklyn, N.Y.
Atwood, William G., Jr.—University of Kansas Medical Center, Kansas City, Kansas
Barondes, Samuel H.—Peter Bent Brigham Hospital, Boston, Mass.
Barzel, Uriel S.—Montefiore Hospital, New York City
Beck, Mary Ellen—Bellevue Hospital, New York City
Blahut, Robert J.—King County Hospital, Seattle, Wash.
Bogdonoff, Diana R.—Chicago Wesley Memorial, Chicago, Ill.
Boies, Lawrence R., Jr.—Minneapolis General Hospital, Minneapolis, Minn.
Brackett, John W., Jr.—Bellevue Hospital, New York City
Brander, Jerome H.—Strong Memorial Hospital, Rochester, N.Y.
Bransome, Edwin D., Jr.—Peter Bent Brigham Hospital, Boston, Mass.
Brenner, Richard W.—Roosevelt Hospital, New York City
Britten, John S.—Presbyterian Hospital, New York City
Brown, James B.—Genesee Hospital, Rochester, N.Y.
Burger, Karl—Mount Sinai Hospital, New York City
Campbell, Robert G.—Pennsylvania Hospital, Philadelphia, Pa.
Charlton, Maurice H.—University of California Hospital, San Francisco, Calif.
Cherry, Sheldon H.—Mount Sinai Hospital, New York City
Clift, George V.—King's County Hospital, Brooklyn, N.Y.
Collins, Daniel J. Jr.—Roosevelt Hospital, New York City
Cooper, Herbert L.—Presbyterian Hospital, New York City
Crago, Harry R.—Duke Hospital, Durham, N.C.
De Bellis, Robert H.—Bronx Municipal Hospital, Bronx, N.Y.
Delany, Harry M.—Bellevue Hospital, New York City
Dennis, Brown W.—Pennsylvania Hospital, Philadelphia, Pa.
Dougan, Jerome W.—Parkland Hospital, Dallas, Texas
Dulany, Virginia A.—Allegheny General Hospital, Pittsburgh, Pa.
Edelman, Frederic L.—Bellevue Hospital, New York City
Edelmann, Werner J.—Brooklyn Hospital, Brooklyn, N.Y.
Finkelstein, James D.—Presbyterian Hospital, New York City
Forland, Marvin—University of Chicago Clinics, Chicago, Ill.
Friendly, David S.—Bellevue Hospital, New York City
Galton, Barry B.—Bronx Municipal Hospital, New York City
Gaynor, Evelyn—Bronx Municipal Hospital, New York City
Gilbert, Arnold—Children's Medical Center, Boston, Mass.
Goldman, William H.—Mount Zion Hospital, San Francisco, Calif.
Gottlieb, Arlan J.—Mount Sinai Hospital, New York City
Green, Lawrence P., Jr.—Lenox Hill Hospital, New York City
Gresham, Glen E.—University Hospitals of Cleveland, Cleveland, Ohio
Hardy, James H., III—St. Luke's Hospital, New York City
Harris, Paul D.—Strong Memorial Hospital, Rochester, N.Y.
Harris, Peyton R., Jr.—St. Luke's Hospital, New York City
Herbert, Robert J.—Colorado General Hospital, Denver, Colo.
Hitchcock, John—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Hnat, Richard F.—Albany Hospital, Albany, N.Y.
Hofreuter, Don H.—Allegheny General Hospital, Pittsburgh, Pa.
Hopewell, William S.—St. Luke's Hospital, New York City
Horwitz, Bert S.—Presbyterian Hospital, New York City
Hunt, Winslow R.—University of California Hospital, San Francisco, Calif.
Jewell, James H., Jr.—Health Center Hospitals, Pittsburgh, Pa.
Jurkowitz, Lawrence—University of Chicago Clinics, Chicago, Ill.
Kaiser, Gerard A.—Presbyterian Hospital, New York City
Kane, William J.—University of Minnesota Hospitals, Minneapolis, Minn.
Kantor, Joseph—Montefiore Hospital, New York City
Kantrowitz, Paul A.—Mount Sinai Hospital, New York City
Kaplan, Norman L.—Bronx Municipal Hospital, New York City
Kazemi, Homayoun—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Kim, Byong M.—King's County Hospital, Brooklyn, N.Y.
Korenman, Stanley G.—Bellevue Hospital, New York City
Landau, Benjamin B.—Bellevue Hospital, New York City
Lazerson, Alan M.—Beth Israel Hospital, New York City
Leland, Oliver S., Jr.—Boston City Hospital, Boston, Mass.
Lindberg, Donald A.—Presbyterian Hospital, New York City

Malawista, Stephen E.—Grace-New Haven Hospital, New Haven, Conn.
Marx, Marvin H.—Barnes Hospital, St. Louis, Mo.
Mendelson, Yonynah S.—Presbyterian Hospital, New York City
Miller, Ronald B.—Boston City Hospital, Boston, Mass.
Morley, Thomas J.—University of Virginia Hospital, Charlottesville, Va.
Morris, Thomas Q.—Bellevue Hospital, New York City
Neave, Charles—St. Luke's Hospital, New York City
Norton, Lawrence W.—Cincinnati General Hospital, Cincinnati, Ohio
Passloff, A. Stephen—Maimonides Hospital, Brooklyn, N.Y.
Patterson, Andrew H.—St. Luke's Hospital, New York City
Pellman, Carl M.—Bronx Municipal Hospital, New York City
Perzin, Karl H.—Jefferson Medical College Hospital, Philadelphia, Pa.
Pincus, Ralph A.—Jewish Hospital, Brooklyn, N.Y.
Porder, Michael S.—New England Center Hospital, Boston, Mass.
Richter, Evelyn B.—University of California Hospital, San Francisco, Calif.
Ridlon, Herrick C.—Hartford Hospital, Hartford, Conn.
Roffwarg, Howard P.—Stanford University Hospitals, San Francisco, Calif.
Rubinstein, Morton—University of Chicago Hospital, Chicago, Ill.
Santoro, Benjamin T.—University of Minnesota Hospital, Minneapolis, Minn.
Schaefer, Robert E.—Stanford University Hospitals, San Francisco, Calif.
Scharer, Lawrence L.—Bellevue Hospital, New York City
Seides, Sim W.—Strong Memorial Hospital, Rochester, N.Y.
Shainberg, David—King's County Hospital, Brooklyn, N.Y.
Shea, Thomas M.—St. Luke's Hospital, New York City
Sherry, Robert W.—Roosevelt Hospital, New York City
Snyder, Elise W.—Bronx Municipal Hospital, New York City
Snyder, William—Jackson Memorial Hospital, Miami, Fla.
Stevelman, Harold B.—University of Virginia Hospital, Charlottesville, Va.
Stimson, Boudinot, Jr.—St. Luke's Hospital, New York City
Strauss, Arthur J.—Mount Sinai Hospital, New York City
Talal, Norman—Presbyterian Hospital, New York City
Tallerday, Charlotte—Hartford Hospital, Hartford, Conn.
Theobald, Thomas J.—St. Vincent's Hospital, New York City
Timmons, Richard P.—St. Joseph's Hospital, Phoenix, Ariz.
Toole, Allan L.—Grace-New Haven Hospital, New Haven, Conn.
Tucker, Sara S.—St. Luke's Hospital, New York City
Van Cleve, Robert B.—University of Virginia Hospital, Charlottesville, Va.
Wacker, Ernest A.—St. Luke's Hospital, New York City
Watson, Richard M.—St. Luke's Hospital, New York City
Weiner, Daniel L.—Cincinnati General Hospital, Cincinnati, Ohio
Weir, James H.—Presbyterian Hospital, New York City
Weiss, Carl A.—St. Vincent's Hospital, New York City
White, Jules—Grace-New Haven Hospital, New Haven, Conn.
White, Richard L.—Presbyterian Hospital, New York City
Wilcke, John A.—University of Oregon Medical School Hospital, Portland, Ore.
Wilcox, Donald F.—Stanford University Hospitals, San Francisco, Calif.
Zeidenberg, Philip—Roosevelt Hospital, New York City

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1959

Allen, Fred Huntley, Jr. — Wadesboro, N.C.
B.S., Davidson, 1955
Alving, Ralph Eric — Chicago, Ill.
A.B., Harvard, 1955
Applebaum, William Schwartz — New York City
A.B., Hunter, 1955
Baker, Lester — Staten Island, N.Y.
A.B., Columbia, 1951
Barrett, C. Redington, Jr. — Greenwich, Conn.
A.B., Yale, 1955
Barth, Donald E. — New York City
A.B., Columbia, 1954
Baum, Richard Samuel — Detroit, Mich.
A.B., Amherst, 1955
Befeler, David — Long Valley, N.J.
A.B., Columbia, 1955
Benjamin, William B. — Brooklyn, N.Y.
A.B., Columbia, 1955
Berkman, Peter Morris — New York City
A.B., Harvard, 1955
Brittin, Geoffrey Mellor — Bergenfield, N.J.
Burks, William Parnelle — Elizabeth, N.J.
A.B., Princeton, 1955
Byrne, Earl Buckingham — Shaker Heights, Ohio
B.S., Princeton, 1954
Cantwell, Nelson Henry — Buffalo, N.Y.
B.S., Canisius, 1954
M.S., Fordham, 1948
Ph.D., Fordham, 1952
Carter, James Rose, Jr. — New York City
A.B., Princeton, 1955
Chase, Richard Allen — South Orange, N.J.
A.B., Chicago, 1952
Civan, Mortimer Mordecai — Brooklyn, N.Y.
A.B., Columbia, 1955
Clark, Cornelius John G. — New York City
A.B., Harvard, 1952
Cohen, Howard — New York City
A.B., Washington and Jefferson, 1951
Collier, Robert Harrison — Indianapolis, Ind.
A.B., Princeton, 1955
Collins, John Austin — New York City
A.B., Fordham, 1955
Constantin, LeRoy Liberal — Clifton, N.J.
A.B., Columbia, 1955
Cukier, Daniel Simon — New York City
B.S., College of the City of New York, 1955
Davidoff, Frank Fisher — New Canaan, Conn.
A.B., Harvard, 1955
Davidson, Charles Bailey — Portsmouth, N.H.
B.S., Yale, 1955
Davis, Jessica Grosof — Brooklyn, N.Y.
A.B., Wellesley, 1955
Druss, Richard George — New York City
A.B., Yale, 1955
Dunne, Peter Benjamin — Washington, D.C.
A.B., Harvard, 1955
Edgar, Malcolm Shepherd — Summit, N.J.
A.B., Princeton, 1955
Eidinger, David — Montreal, Canada
Ph.D., McGill, 1955
Eleuteri, Amerigo John — Trenton, N.J.
A.B., Princeton, 1955
Epstein, Manfred David — New York City
A.B., New York University, 1955
Faust, Kenneth Joseph — Shamokin, Pa.
A.B., Lehigh, 1955
Ferber, Andrew Samuel — New York City
B.S., Wisconsin, 1955
First, Robert Alan — Gambier, Ohio
A.B., Kenyon, 1955
Forde, Kenneth Avril — New York City
B.S., College of the City of New York, 1954
Foulke, John David — Steubenville, Ohio
A.B., Kenyon, 1955
Freeman, Guy Gilmore — Flushing, N.Y.
A.B., Columbia, 1955
Gardner, Lee Robbins — New York City
A.B., Barnard, 1955
Gilfillan, John Thomas, Jr. — New York City
B.S., U.S. Naval Academy, 1944
M.B.A., Harvard, 1949
Ginsberg, George L. — Fall River, Mass.
A.B., Brown, 1955
Ginsberg, Stanley Arthur — Far Rockaway, N.Y.
A.B., Amherst, 1955
Goodman, Beverly June — Baltimore, Md.
A.B., Goucher, 1954
Gordon, I. Bradley — Brooklyn, N.Y.
A.B., Vermont, 1955
Grainger, David William, Jr. — Niles, Ohio
B.S., Yale, 1955
[1] Gudmundsen, Borre Landaas — New York City
B.S., U.S. Merchant Marine Academy, 1950
Gutmann, Ludwig — Farmingdale, N.J.
A.B., Princeton, 1955
Harris, Donald Lee — Forest Hills, N.Y.
B.S., Syracuse, 1950
Herskovic, Teodoro — Mexico, D.F., Mexico
A.B., Harvard, 1955
Hilles, Linda — New York City
A.B., Barnard, 1955
Hillman, Robert Swart — Brooklyn, N.Y.
B.S., Tufts, 1955
Hollander, Charles S. — New York City
A.B., Columbia, 1955
Hulka, Barbara Sorenson — New York City
A.B., Radcliffe, 1952
M.S., Juilliard, 1954
Izard, Mark Whitaker — New York City
A.B., Columbia, 1954
Jesse, Mary Jane — New Canaan, Conn.
A.B., Nazareth, 1939
Johnson, Theodore Herbert — New Britain, Conn.
A.B., Harvard, 1954
Jones, Ellyn Palmer — Princeton, N.J.
A.B., Wooster, 1955
Jones, Robert Holmes — Macon, Ga.
B.S., Davidson, 1955
[1] Justice, James W. — Clinton, Tenn.
A.B., Yale, 1954
[2] Kane, Kendall Kent — Dover, Ohio
A.B., Princeton, 1955
Kanter, Ira Edward — Newton, Mass.
A.B., Haverford, 1955
Kaplan, Edward Steven — Memphis, Tenn.
A.B., Yale, 1955

[1] Withdrew. [2] Research year 1957-1958.

Keller, Jean Bohnet — Bronxville, N.Y.
B.S., Cornell, 1955
Kundel, Harold Louis — Jamaica, N.Y.
A.B., Columbia, 1955
Lietman, Paul Stanley — Cuyahoga Falls, Ohio
A.B., Western Reserve, 1955
Linwood, Richard Arnold — Bellmore, N.Y.
A.B., Yale, 1955
London, Frederick Allan — New York City
A.B., Princeton, 1955
Ludes, Bernard Francis — Valley Stream, N.Y.
B.S., Rensselaer Polytechnic Institute, 1955
MacDonald, Carlton A., Jr. — Baldwin, N.Y.
A.B., Princeton, 1954
McConnell, Donald Verne — Toronto, Ohio
A.B., Princeton, 1955
McHugh, Burton Peek — Bronxville, N.Y.
A.B., Harvard, 1954
McKinney, Alexander Stuart — New York City
A.B., Princeton, 1955
Michelsen, Walter James, Jr. — Salt Lake City, Utah
A.B., Columbia, 1951
Middleton, Augustus Loftus, Jr. — Sumter, S.C.
A.B., Princeton, 1952
Miller, Orlando — Tulsa, Okla.
A.B., Yale, 1955
Moscarella, Alfred Anthony — Spring Valley, N.Y.
A.B., Colgate, 1955
Mott, Peter Dodge — Washington, D.C.
A.B., Princeton, 1955
Mueller, Mark Noble — Englewood, N.J.
A.B., Colgate, 1955
Muiznieks, Ansis — Princeton, N.J.
B.S., Columbia, 1955
Munsick, George Washington — Morristown, N.J.
Munsie, William Johnson — Manchester, Conn.
B.S., Tufts, 1955
Myers, Joseph Kieffer, Jr. — Akron, Ohio
A.B., Princeton, 1955
Newman, Matthew — Blue Point, N.Y.
A.B., Vanderbilt, 1956
Nourok, David S. — Brooklyn, N.Y.
B.S., College of the City of New York, 1955
Petersen, Robert Allen — St. Albans, N.Y.
B.S., Queens, 1955
Petersen, Veronica Stinnes — Haverford, Pa.
A.B., Pembroke, 1955
Phillips, Gene Marshall — Middletown, Ohio
A.B., Princeton, 1955
Pines, Joseph — New York City
A.B., Yale, 1955
Pi-Sunyer, F. Xavier — Montclair, N.J.
A.B., Oberlin, 1955
Pittman, Fred Estes — Cleveland, Miss.
A.B., Yale, 1955
Plaut, Thomas F. — Dayton, Ohio
A.B., Yale, 1955
Prescott, Richmond — New York City
A.B., Harvard, 1949; LL.B., 1952
Pressman, Peter I. — New York City
A.B., Columbia, 1955
Prothero, S. Richard — Springfield, Mass.
B.S., Bates, 1955
Pugatch, Donald — Richmond Hill, N.Y.
A.B., Columbia, 1955
Reiss, Robert Marshall — New York City
A.B., Columbia, 1951
Rohde, Richard Louis — Grand Forks, N.D.
B.S., North Dakota, 1957
Roome, Norman Sterling — New York City
A.B., Columbia, 1955
Rosen, Samuel Morton — Paterson, N.J.
A.B., Hamilton, 1955
Rosenberg, Arthur Henry — Ventnor, N.J.
A.B., Amherst, 1955
Rosenfield, Allan G. — Brookline, Mass.
A.B., Harvard, 1955
Schieffelin, John Winterbotham
A.B., Harvard, 1954 — White House Station, N.J.
Schwartz, Arnold — New York City
A.B., Columbia, 1955
Shaw, William Vare — Wynnewood, Pa.
A.B., Williams, 1955
Sigler, Paul Benjamin — Rockaway Beach, N.Y.
A.B., Princeton, 1955
Simon, Bennett — Brooklyn, N.Y.
A.B., Harvard, 1955
Slack, Warner Vincent — Upper Montclair, N.J.
A.B., Princeton, 1955
Smith, Martin Jay — Long Beach, N.Y.
A.B., Hofstra, 1955
[2] Smith, Thomas G. — Le Grange, Ga.
A.B., Emory, 1953
Spitzer, Kenneth H. — Skaneateles, N.Y.
B.S., Hobart, 1955
Storm, George — New Canaan, Conn.
A.B., Yale, 1955
Strauch, Berish — New York City
A.B., Columbia, 1955
Strehan, Theodore Leonard — Leonia, N.J.
A.B., Fordham, 1955
Tegtmeyer, Gamber Frederick — Milwaukee, Wis.
A.B., Kenyon, 1955
Tikoff, Gerasim — New York City
A.B., Columbia, 1955
Vadeika, Edward — Hillside, N.J.
A.B., Hamilton, 1955
Wallace, Seymour — New York City
A.B., Columbia, 1954
Weech, Alexander Ashley, Jr. — Cincinnati, Ohio
A.B., Princeton, 1955
Weems, Charles E. — Washington, D.C.
A.B., Yale, 1955
Wender, Paul Herbert — New York City
A.B., Harvard, 1955
Wheeler, Leonard, Jr. — Cambridge, Mass.
A.B., Harvard, 1955
Widrow, David Richard — Versailles, Conn.
A.B., Yale, 1954
Wilson, George Campbell, Jr. — Norwicb, Conn.
A.B., Yale, 1955
Wolf, Sheldon Mark — Brooklyn, N.Y.
A.B., Columbia, 1955
Wosnitzer, Maclyn Elliott — Newark, N.J.
A.B., Dartmouth, 1955

Fourth Year: Class of June, 1959 118

THIRD-YEAR CLASS—CLASS OF JUNE, 1960

Alling, Stearly — Montclair, N.J.
A.B., Wellesley, 1956
[1] Anderson, John Joseph — Cleveland Heights, Ohio
A.B., Williams, 1956
Anderson, Richard Arnold — Greenwich, Conn.
A.B., Wesleyan, 1956

[1] Withdrew. [2] Research year 1957-1958.

Anderson, Richard Dawson — Birmingham, Ala.
A.B., Birmingham Southern, 1956
Beller, Barry Maurice — New York City
A.B., Columbia, 1956
Blumenthal, Jesse Arthur — Brooklyn, N.Y.
A.B., Columbia, 1956
Bradley, Edward B. — Utica, N.Y.
A.B., Hamilton, 1956
Braun, Peter — Bridgeport, Conn.
B.S., Yale, 1956
Brownlee, William Harry — Charlotte, N.C.
B.S., Davidson, 1956
Callan, Desmond — Brooklyn, N.Y.
A.B., Columbia, 1950
Canellos, George Peter — East Boston, Mass.
A.B., Harvard, 1956
Choy, Martin Frank — Jersey City, N.J.
A.B., Yale, 1956
Clark, Julian Joseph — Brooklyn, N.Y.
A.B., Princeton, 1956
Clutz, Richard Baker — St. Davids, Pa.
A.B., Princeton, 1956
Coats, Thomas F. — Lexington, Ky.
A.B., Kentucky, 1952
Coffey, Edward Lyman — Westfield, N.J.
A.B., Princeton, 1956
Cohen, Michael Irwin — New York City
A.B., Columbia, 1956
Cohen, Peter Jacob — New York City
A.B., Princeton, 1956
Cummings, Dean Winfred — Plains, Mont.
A.B., Montana State, 1952
Dawes, Henry F. — Englewood, N.J.
A.B., Princeton, 1956
[1] Dede, Renee Marilyn — New York City
A.B., New York University, 1953
Denner, Joseph Leroy — Alva, Okla.
A.B., Westminster, 1953
Dennick, Leonard Gainsworth, Jr. — Hamburg, N.Y.
A.B., Colgate, 1956
DeSimone, Arthur Robert — Glendale, N.Y.
B.S., Manhattan, 1956
Doherty, Richard Arthur — Newport, Me.
A.B., Amherst, 1956
Dolganos, Ellen Marie — Jersey City, N.J.
A.B., Vassar, 1956
Downey, James Lewis — Darien, Conn.
A.B., Yale, 1956
Doyle, George B. — Worcester, Mass.
A.B., Harvard, 1956
Duncan, William Yeats III — New Haven, Conn.
B.S., Yale, 1953
Dunne, Peter B. — Washington, D.C.
A.B., Harvard, 1955
Eddison, Grace Gene — Wellesley Hills, Mass.
A.B., Wellesley, 1949
Ehrmann, Norbert August — Toms River, N.J.
A.B., Princeton, 1953
Emde, Robert Newcomb — Katonah, N.Y.
A.B., Dartmouth, 1956
Fabrega, Horacio, Jr. — Boston, Mass.
A.B., Pennsylvania, 1956
Forker, George Norman — Pittsburgh, Pa.
A.B., Yale, 1956
Forwand, Stanley Arthur — New York City
A.B., Union, 1956
Ginsberg, Joel — Brooklyn, N.Y.
A.B., Princeton, 1956

[1] Withdrew.

Glezen, John Marcena — Cortland, N.Y.
A.B., Hamilton, 1956
Glinsmann, Walter Henry — Bronxville, N.Y.
A.B., Columbia, 1956
Goldfinger, Stephen Edward — Brooklyn, N.Y.
A.B., Princeton, 1956
[1] Goldstein, Malcolm — Forest Hills, N.Y.
A.B., Columbia, 1956
Graham, Paul Albert — Wheeling, W.Va.
A.B., Princeton, 1956
Hanson, Kenneth Charles — Watertown, S.D.
A.B., St. Olaf, 1956
Heimarck, Gregory James — Edina, Minn.
A.B., St. Olaf, 1956
Heller, Stanley Samuel — New York City
A.B., Yale, 1956
Hersh, Evan Manuel — New York City
B.S., College of the City of New York, 1956
Hicks, William Ray — Winnetka, Ill.
A.B., Princeton, 1956
Hollander, Joshua — New York City
A.B., Columbia, 1956
Holsclaw, Douglas S., Jr. — Tucson, Ariz.
A.B., Arizona, 1956
Hoppin, Frederic Gallatin, Jr. — Huntington, N.Y.
A.B., Harvard, 1956
Howes, Edward Lee, Jr. — Dobbs Ferry, N.Y.
A.B., Yale, 1956
Janin, Matthew Joel — New York City
A.B., Columbia, 1956
Johnson, John Richard — Quaker City, Ohio
B.S., Ohio, 1956
Kallen, Roland Gilbert — Newark, N.J.
A.B., Amherst, 1956
Kane, Kendall Kent — Dover, Ohio
A.B., Princeton, 1955
Kao, Priscilla M. N. — Singapore, Malaya
A.B., Pennsylvania, 1956
Kaufman, Roger Stuart — Monroe, N.Y.
A.B., Princeton, 1956
Keller, Howard Irving — Plainfield, N.J.
A.B., Princeton, 1956
King, Donald Latham — San Marino, Calif.
A.B., Stanford, 1956
Klein, Herbert Alan — Upper Montclair, N.J.
A.B., Columbia, 1956
Korhammer, Alan Francis — Mt. Vernon, N.Y.
A.B., Princeton, 1956
[1] Kott, Stephen — Verona, N.J.
A.B., Michigan, 1956
Kroll, Arnold Joseph — Jersey City, N.J.
A.B., Princeton, 1956
Kronfeld, Peter Paul — Wilmette, Ill.
A.B., Wesleyan, 1956
Leach, Charles Nelson — Newfane, Vt.
A.B., Amherst, 1956
Lehwalder, Laurus Waldemar — Butte, Mont.
B.S., Oregon State, 1952
Lennon, Arthur Joseph — New York City
A.B., Fordham, 1956
MacLean, Neil Murdo — Byram, Conn.
A.B., Hamilton, 1956
MacLowry, James Don — Buffalo, N.Y.
A.B., Yale, 1956
Marubbio, Adolph T. — Brooklyn, N.Y.
A.B., New York University, 1956
Marx, Herbert J. — St. Albans, N.Y.
B.E.E., Rensselaer Polytechnic, 1954

[1] Withdrew.

Mayers, Lester Barry — New York City
A.B., Wisconsin, 1956
Milligan, Richard Scott — Richmond, Ind.
A.B., Kenyon, 1956
Mogil, Sandra Louise — New York City
A.B., Barnard, 1956
Moroff, Saul Victor — Reading, Pa.
A.B., Yale, 1956
Nadel, Alfred Joel — New York City
A.B., Union, 1956
Nelson, Michael Kenneth — Brooklyn, N.Y.
A.B., Columbia, 1956
Neuhardt, Robert George — Pelham Manor, N.Y.
B.S., Yale, 1956
Nicklaus, Ted Maurice — Amarillo, Tex.
A.B., Yale, 1956
Nold, Mary Beatrice — Berkeley, Calif.
A.B., Northwestern, 1946
A.M., Mills, 1948
B.L.S., California, 1951
Nova, Harvey Ronald — Brooklyn, N.Y.
A.B., Brooklyn, 1956
Oppenheim, Joost Joe — New York City
A.B., Columbia, 1956
Palombo, Stanley Robert — Brooklyn, N.Y.
A.B., Harvard, 1955
Penn, Audrey Shields — New York City
A.B., Swarthmore, 1956
Phelps, Paulding — Philadelphia, Pa.
A.B., Haverford, 1955
Picoff, Ronald Chester — Brooklyn, N.Y.
A.B., Columbia, 1956
Pincus, Jonathan Henry — Brooklyn, N.Y.
A.B., Amherst, 1956
Poliner, George Franklin — Springfield, Mass.
A.B., Wesleyan, 1956
Raine, Alan Charles — Hollis, N.Y.
A.B., Queens, 1953
Ravel, Richard — Clearwater, Fla.
A.B., Harvard, 1953
Reilly, Herbert Faulkner, Jr. — Forest Hills, N.Y.
A.B., Princeton, 1956
Richards, Ernest Carter — Rye, N.Y.
A.B., Yale, 1956
Riggins, Robert C. K. — New York City
A.B., Yale, 1956
Robbins, Jay Howard — Woodmere, N.Y.
A.B., Harvard, 1956
Roman, Theodore Presley — Rosholt, S.D.
A.B., Dakota Wesleyan, 1956
Rosen, Ora — New York City
A.B., Barnard, 1956
Rowland, Christopher V., Jr. — Reedsville, Pa.
A.B., Princeton, 1956
Rucker, Charles Monroe — Flagstaff, Ariz.
B.S., Arizona, 1956
Sachs, John Richard — Brooklyn, N.Y.
B.S., Manhattan, 1956
Salot, William Harry — Mt. Clemens, Mich.
A.B., Amherst, 1956
Scham, Stewart Marvin — Yonkers, N.Y.
A.B., New York University, 1956
Schuh, Frederic DeGraw — Teaneck, N.J.
B.S., Trinity, 1956
Schwartz, Elias — Brooklyn, N.Y.
A.B., Columbia, 1956
Seto, Dexter S. Y. — Honolulu, T.H.
A.B., Kenyon, 1956
Smith, Lloyd DuBois, Jr. — Oakdale, Calif.
A.B., California, 1956
Smith, Richard Stanton — Laconia, N.H.
A.B., Wesleyan, 1956
Smith, Thomas Graves, Jr. — La Grange, Ga.
B.A., Oxford, 1956
Solomon, Sheila Horn — New York City
B.S., McGill, 1953
Sorger, Martin Lawrence — Newark, N.J.
A.B., Hamilton, 1956
Stanley, George Richard — Lawton, Okla.
B.S., Oklahoma, 1956
Stassa, George — Forest Hills, N.Y.
A.B., Columbia, 1956
Suarez, John Michael — New York City
A.B., Columbia, 1956
Swinton, Neil Williams, Jr. — Waban, Mass.
A.B., Haverford, 1956
Taylor, William R. — Leominster, Mass.
B.S., Worcester Polytechnic Institute, 1955
Temple, William Edward — Ridgewood, N.J.
A.B., Columbia, 1956
Touloukian, Robert James — New York City
A.B., Columbia, 1956
Troupin, Allan Stuart — Geneva, Switzerland
A.B., Columbia, 1956
Troupin, Rosalind Hilsen — New York City
B.S., College of the City of New York, 1956
Trunnel, Thomas Lowry — Kirksville, Mo.
Urschel, William Powell — Bowling Green, Ohio
A.B., Princeton, 1956
Weiss, Bernard — Forest Hills, N.Y.
A.B., Columbia, 1956
Wolfe, David Emery — Seattle, Wash.
A.B., Columbia, 1956

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SECOND-YEAR CLASS—CLASS OF JUNE, 1961

Allen, Charles DeBertram — Sanford, Me.
A.B., Harvard, 1957
Alling, Frederic Augustus — Montclair, N.J.
A.B., Princeton, 1952
Argall, Temby Richie — Lakesville, Conn.
A.B., Yale, 1957
Banks, Peter Alan — Chestnut Hill, Mass.
A.B., Harvard, 1957
Bard, David Sayre — New York City
B.S., Stetson, 1957
Bates, Griffin Miller, Jr. — Jamaica, N.Y.
A.B., Hamilton, 1957
Becker, Heber Weidler, Jr. — Lancaster, Pa.
B.S., Franklin and Marshall, 1957
Beckman, Daryl Elizabeth — Byrn Mawr, Pa.
A.B., Mount Holyoke, 1957
Benjamin, Burton Irving — Forest Hills, N.Y.
A.B., Hamilton, 1957
Billig, Stuart Lawrence — New York City
A.B., Hamilton, 1957
Bowe, Edward Thomas — Bronx, N.Y.
B.S., Columbia, 1956
Bowers, Henry Myers, Jr. — Chatham, N.J.
A.B., Princeton, 1957
Brill, Charles Beauford — New York City
A.B., Lafayette, 1957
Brunjes, Carl Frederick — Hartsdale, N.Y.
A.B., Yale, 1957
Bullwinkel, George Albert, Jr. — Rye, N.Y.
A.B., Yale, 1957
Campbell, Allen Barry — Cleveland Heights, Ohio
A.B., Princeton, 1957

Christensen, Edward Warren — Harlan, Iowa
A.B., Columbia, 1957
Clark, Hugh — Pottersville, N.J.
A.B., Williams, 1957
Clevenger, Joseph Henry, Jr. — Muncie, Ind.
A.B., Princeton, 1957
Cohen, Martin Noel — Passaic, N.J.
A.B., Harvard, 1957
Cohen, Stanley — Brooklyn, N.Y.
A.B., Columbia, 1957
Cohn, Lawrence Jerome — Brooklyn, N.Y.
B.S., Franklin and Marshall, 1957
Corning, Howard Burt — Syosset, N.Y.
A.B., Harvard, 1957
Curran, John Patrick — St. Paul, Minn.
A.B., Saint Mary's, 1957
Daley, Sara Elizabeth — Bronxville, N.Y.
A.B.,Vassar, 1957
Danes, Betty Shannon — Brightwaters, N.Y.
A.B., Mount Holyoke, 1948
A.M., Texas, 1949
Ph.D., Iowa, 1952
Dans, Peter Emanuel — New York City
B.S., Manhattan, 1957
Dantzler, William Hoyt — Milwaukee, Wis.
A.B., Princeton, 1957
Darey, Mary Louise — Livermore Falls, Me.
A.B., Wellesley, 1957
Decker, Norman — New York City
A.B., Columbia, 1957
Dennis, Allen Johnson, Jr. — Macon, Ga.
A.B., Rice Institute, 1957
Deuel, Thomas Franklin — Short Hills, N.J.
A.B., Princeton, 1957
DeWitt, Robert James — Oconto, Wis.
A.B., Carleton, 1957
Duberstein, Joel Lawrence — Bayonne, N.J.
A.B., Princeton, 1957
Durante, Lawrence John — Long Island City, N.Y.
A.B., Princeton, 1957
Dwyer, Edward Michael — Plymouth, Pa.
A.B., Columbia, 1957
Emery, Edward Stanley, III — Milton, Mass.
A.B., Princeton, 1957
Finkel, Jerry Bernard — New York City
A.B., Columbia, 1957
Fleming, William Hare — Columbus, Ohio
A.B., Yale, 1957
[1] Flood, Barbara Joyce — New York City
A.B., Wellesley, 1953
Gale, James Lyman — Concord, Mass.
A.B., Harvard, 1957
Gilman, Richard Alan — Swampscott, Mass.
A.B., Williams, 1957
Glass, Joseph Lewis — Lynbrook, N.Y.
A.B., Princeton, 1957
Golden, Gerald Samuel — Newark, N.J.
A.B., Princeton, 1957
Gregory, Raymond Frederick — Galveston, Tex.
A.B., Princeton, 1957
Grossbard, Lionel — Brooklyn, N.Y.
A.B., Columbia, 1957
Grossman, Frederick Maurice — El Paso, Tex.
A.B., Harvard, 1957
Guggenheim, Frederick Gibson — Washington, D.C.
A.B., Yale, 1957
Gwyn, Paul Perkins, Jr. — Elkin, N.C.
A.B., Princeton, 1957

[1] Leave of absence.

Harvey, Seth — New York City
A.B., Princeton, 1955
Hendricks, Ed Jerald — Dallas, Tex.
A.B., Rice Institute, 1957
Hope, Peter Blanchard — New York City
A.B., Harvard, 1957
Janoski, Alfonso Hubert — Newark, N.J.
A.B., Seton Hall, 1957
Kalinske, Robert Wayne — Tucson, Ariz.
A.B., Yale, 1957
Katz, Edward Lyle — Hartford, Conn.
A.B., Princeton, 1957
Katz, Leonard Allen — Buffalo, N.Y.
A.B., Yale, 1957
Kim, Dong Su — Taejon, Korea
A.B., Bowdoin, 1957
Knebel, Ruthmary Spear — Canaan, N.Y.
A.B., Mount Holyoke, 1956
Kohler, Peter Francis — Milwaukee, Wis.
A.B., Princeton, 1957
Kohn, Leonard David — Easton, Pa.
A.B., Columbia, 1957
Kovel, Joel Stephen — Rockville Centre, N.Y.
B.S., Yale, 1957
Labourdette, Irene Lois — Lincoln Park, N.J.
A.B., Oberlin, 1952
A.M., Iowa, 1954
Lemlich, Arthur — New York City
B.S., Columbia, 1957
Levitzky, Munro Joseph — Brooklyn, N.Y.
A.B., Columbia, 1957
Lightdale, Mayer Raynes — Jersey City, N.J.
A.B., Princeton, 1957
Luftschein, Stanley — Flushing, N.Y.
A.B., Columbia, 1957
Luikart, William Ernst — Woodhaven, N.Y.
A.B., Columbia, 1957
Mack, Thomas McCulloch — Minden, Nev.
A.B., Carleton, 1957
Maenza, Ronald Morton — Jackson Heights, N.Y.
A.B., Columbia, 1957
Marcuse, Donald James — New York City
A.B., Harvard, 1957
Marglin, Arnold Gershaw — Hollywood, Calif.
A.B., Harvard, 1957
Melges, Frederick Towne — Battle Creek, Mich.
A.B., Princeton, 1957
Meyer, Arthur Young — Fort Lee, N.J.
B.M.E., Rensselaer Polytechnic Institute, 1953
Meyer, James Hugh — Milwaukee, Wis.
A.B., Princeton, 1957
Meyerson, Arthur Theodore — New York City
A.B., Columbia, 1957
Millheiser, Peter John — New York City
A.B., Columbia, 1957
Morgan, Walter Edward, III — Glen Ridge, N.J.
A.B., Wesleyan, 1957
Mulcare, Robert John — Garden City, N.Y.
A.B., Princeton, 1957
Nachamie, Benjamin Abraham — Brooklyn, N.Y.
A.B., Columbia, 1957
Neer, Robert Marshall — Urbana, Ohio
A.B., Harvard, 1957
O'Connell, Francis Daniel — Uxbridge, Mass.
A.B., Harvard, 1957
Pflueger, Otto Henry, Jr. — San Francisco, Calif.
A.B., Reed, 1957
Philip, James Louis — Worcester, Mass.
B.S., Michigan, 1957

Powell, William John, Jr. — Duxbury, Mass.
A.B., Harvard, 1957
Redman, Helen Cornelia — Great Neck, N.Y.
A.B., Rochester, 1957
Reich, Paul Richard — Hackensack, N.J.
A.B., Princeton, 1957
Reichel, William — New York City
A.B., Columbia, 1957
Reifsnyder, David Navarre — Chester, N.Y.
A.B., Columbia, 1957
Robbins, Michael Daniel, Jr. — West Englewood, N.J.
A.B., Amherst, 1955
Robinson, James Alan — Mount Vernon, N.Y.
A.B., Wesleyan, 1957
Robinson, John Lee — Omaha, Neb.
A.B., Yale, 1957
[1] Rockwell, Richard George — Pittsburgh, Pa.
A.B., Hamilton, 1957
Rosen, John Friesner — Katonah, N.Y.
A.B., Harvard, 1957
Ryan, John Francis — Jamaica Plain, Mass.
A.B., Boston College, 1957
Schwarzberg, Jane Elizabeth — New York City
A.B., Barnard, 1957
Schwartzman, William Robert — New York City
A.B., Columbia, 1957
Scott, Robert Henderson — Northfield, Minn.
A.B., Carleton, 1957
Sheagren, John Newcomb — Rockford, Ill.
A.B., Carleton, 1957
Sherwood, Louis Maier — Hempstead, N.Y.
A.B., Johns Hopkins, 1957
Skolnick, M. Leon — Forest Hills, N.Y.
A.B., Columbia, 1957
Song, Chull Sung — Seoul, Korea
B.S., Birmingham-Southern, 1957
Standfast, Susan Jane — Binghamton, N.Y.
A.B., Wells, 1957

[1] Leave of absence.

Stevenson, Donald Day — Rye, N.Y.
A.B., Princeton, 1957
Stouch, William Haydn — York, Pa.
A.B., Princeton, 1957
Strayer, Luther Milton, III — Stratford, Conn.
A.B., Princeton, 1957
Stuart, Philip Frazer — Lakewood, Ohio
A.B., Bowdoin, 1957
Talbott, John Andrew — Eden (Buffalo), N.Y.
A.B., Harvard, 1957
Teran, Irwin Burton — Flushing, N.Y.
A.B., Columbia, 1957
Terry, Stephen — Tucson, Ariz.
A.B., B.S., Arizona, 1957
Thurer, Richard Jerome — Hicksville, N.Y.
A.B., Princeton, 1957
Townsend, Eleanor Meneely — New York City
A.B., Sarah Lawrence, 1957
Troy, Bart Lynch — Melrose, Mass.
A.B., Georgetown, 1957
Tucker, Marjorie Jane — Brooklyn, N.Y.
A.B., Radcliffe, 1957
Wanderer, Alan Anson — Woodside, N.Y.
A.B., Earlham, 1957
Wanger, Stephen Lewis — Albany, N.Y.
A.B., Yale, 1957
Watson, Charles Gray — Carnegie, Pa.
A.B., Princeton, 1957
Weber, Eric Taylor — Clinton, N.Y.
A.B., Oberlin, 1957
Weil, Richard, III — New York City
A.B., Princeton, 1957
Whaley, David Anthony — Kenmore, N.Y.
A.B., Rochester, 1957
Wilson, Paul Tyler — Park Ridge, Ill.
A.B., Columbia, 1954

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STUDENTS ACCEPTED FOR THE CLASS OF 1962

Ackerman, Albert B. — Elizabeth, N.J.
A.B., Princeton, 1958
Allen, Thomas E. — Milwaukee, Wis.
A.B., Princeton, 1958
Augur, Newell A., Jr. — St. Louis, Mo.
B.E., Yale, 1958
Baker, Fred L. — Owensboro, Ky.
A.B., Wabash, 1958
Barlow, Peter B. — Englewood, N.J.
A.B., Harvard, 1958
Behrens, Myles M. — Brooklyn, N.Y.
A.B., Yale, 1958
Bell, Donald C. — Wooster, Ohio
A.B., Wooster, 1953
B.D., Chicago, 1956
Bell, H. Glenn, Jr. — San Francisco, Calif.
A.B., Stanford, 1958
Berkes, Kenneth J., Jr. — Baldwin, N.Y.
A.B., Hamilton, 1958
Berman, Howard H. — Silver Spring, Md.
A.B., Duke, 1958
Bezahler, Stephen — Camden, N.J.
A.B., Williams, 1958
Blass, John P. — Stamford, Conn.
A.B., Harvard, 1958
Brown, Courtney Warren — Scarsdale, N.Y.
A.B., Williams, 1957
Brown, Richard M. — Princeton, N.J.
A.B., Princeton, 1958
Bruck, Harold M. — Newark, N.J.
A.B., Hamilton, 1958
Brust, John C. M., Jr. — Syracuse, N.Y.
A.B., Harvard, 1958
Buckley, Marcia A. — Wakeman, Ohio
A.B., Mount Holyoke, 1958
Bull, Sherman M. — Riverdale, N.Y.
A.B., Yale, 1958
Burress, Donald A. — Wauwatosa, Wis.
A.B., Ripon, 1955
B.S., M.S., Massachusetts Institute of Technology, 1956
Campbell, James M. — South Bend, Ind.
B.S., Yale, 1958
Casazza, Albert R. — Secaucus, N.J.
A.B., Princeton, 1958
Cassileth, Peter A. — New York City
A.B., Union, 1958
Caton, Donald — Washington, D.C.
B.S., Yale, 1958
Cave, Robert H. — Stillwater, Okla.
A.B., Oklahoma State, 1958
Chao, Solan — New York City
A.B., Cornell, 1954
Coates, Edward D. — Corona Del Mar, Calif.
A.B., Yale, 1958
Cohen, Donald S. — Port Jervis, N.Y.
A.B., Hamilton, 1958
Cohen, Stanley J. — Brooklyn, N.Y.
A.B., Columbia, 1958
Cohn, Frank Peter — Scarsdale, N.Y.
A.B., Columbia, 1958
Coldiron, John S. — Cortland, Ohio
A.B., Hiram, 1958
Congleton, Ann — Dayton, Ohio
A.B., Wellesley, 1958
Coulis, Despine L. — Salem, Mass.
A.B., Smith, 1958
Covey, William G. — New York City
A.B., Columbia, 1958
Dauber, Leonard G. — Brooklyn, N.Y.
A.B., Columbia, 1958
Dubin, Howard V. — New York City
A.B., Columbia, 1958
Duncan, William C., III — Northampton, Mass.
A.B., Princeton, 1958
Flagg, Stephen V. — Englewood, N.J.
B.S., Yale, 1957
Flood, Barbara Joyce — New York City
A.B., Wellesley, 1953
Fogelberg, Earl Victor — Chicago, Ill.
A.B., Princeton, 1958
Fox, Howard A. — Brooklyn, N.Y.
B.S., Union, 1954
Ph.D., Columbia, 1958
Frankel, Herman Morris — Brooklyn, N.Y.
A.B., Columbia, 1958
Gamble, Anne van N. — New York City
A.B., Mount Holyoke, 1956
Geller, Arthur S. — Laurelton, N.Y.
A.B., Williams, 1958
Gollance, Robert B. — Brooklyn, N.Y.
A.B., Harvard, 1958
Grant, John P., Jr. — New Canaan, Conn.
A.B., Amherst, 1954
Grant, Sandra Elisabeth — Liberty, N.Y.
A.B., Bryn Mawr, 1958
Graves, Mary L. — Philadelphia, Pa.
A.B., Pennsylvania, 1958
Gray, Parke H. — Hartford, Conn.
A.B., Williams, 1958
Gutstein, Robert A. — Brooklyn, N.Y.
A.B., Colgate, 1958
Haft, Jacob I. — Belleville, N.J.
A.B., Harvard, 1958
Hankin, Edwin — Brooklyn, N.Y.
A.B., Columbia, 1958
Herzberg, Robert M. — Pacific Palisades, Calif.
A.B., Reed, 1958
Hirschhorn, Norbert — New York City
A.B., Columbia, 1958
Hurst, Fred S. — Brooklyn, N.Y.
A.B., Princeton, 1958
Immordino, Peter A. — Yonkers, N.Y.
A.B., New York University, 1958
Johnson, Warren D., Jr. — Gurnee, Ill.
B.S., Carroll, 1958
Karliner, Joel S. — Union City, N.J.
A.B., Columbia, 1958
Kilburn, Howard Lee — Wenatchee, Wash.
A.B., University of Washington, 1958
Klein, William J., Jr. — Cincinnati, Ohio
A.B., Cincinnati, 1957
Kovach, John S. — Shaker Heights, Ohio
A.B., Princeton, 1958
Kraut, Joel A. — Jersey City, N.J.
A.B., Princeton, 1958

Kreek, Mary Jeanne — Washington, D.C.
A.B., Wellesley, 1958
Lerner, Irving J. — Cincinnati, Ohio
A.B., Yale, 1958
Lesneski, Albert C. — Elizabeth, N.J.
A.B., Princeton, 1958
Lettiere, Anthony C. — Hartford, Conn.
B.S., Holy Cross, 1958
Levine, Jonathan — Brooklyn, N.Y.
A.B., Columbia, 1958
Lovejoy, William P. — Old Wick, N.J.
A.B., Yale, 1956
Margolies, Lawrence Noel — New York City
A.B., Columbia, 1958
Margolies, Michael N. — Flushing, N.Y.
A.B., Harvard, 1958
Marks, Clement E., Jr. — Bethlehem, Pa.
A.B., Dartmouth, 1958
McCarroll, Henry R. — St. Louis, Mo.
A.B., Princeton, 1958
McCray, Richard S. — Columbus, Ohio
A.B., Wesleyan, 1954
B.D., Yale, 1957
Miller, Robert L. — Elmira, N.Y.
A.B., Hamilton, 1958
Moloy, Peter Jay — New York City
A.B., Harvard, 1958
Mosher, Paul W. — Albany, N.Y.
A.B., Harvard, 1958
Murphy, Scott — Merion, Pa.
A.B., Yale, 1957
Nadel, Martin S. — Brooklyn, N.Y.
A.B., Hamilton, 1957
Nasr, Khosrow — Tehran, Iran
B.S., Yale, 1958
Nisonson, Ian — New York City
A.B., Columbia, 1958
Oppenheimer, Edward Anthony — New York City
A.B., Columbia, 1958
Orahood, Richard C. — Marysville, Ohio
A.B., Ohio Wesleyan, 1958
Pagliaro, Salvatore J. — New York City
A.B., Columbia, 1958
Pascal, Robert R. — New York City
A.B., Columbia, 1958
Patek, David J. — New York City
A.B., Harvard, 1958
Plimpton, Sarah G. — New York City
A.B., Smith, 1958
Puchner, Peter J. — Manitowoc, Wis.
A.B., Carleton, 1958
Purcell, Ganson, Jr. — Washington, D.C.
A.B., Williams, 1958
Rappaport, Michael Lee — Glencoe, Ill.
A.B., Harvard, 1958
Reber, Robert E. — Circleville, Ohio
A.B., Ohio, 1958
Reese, Thomas S. — Cleveland, Ohio
A.B., Harvard, 1957
Romas, Nicholas A. — Phoenix, Ariz.
A.B., Colgate, 1958
Root, Elihu N. — New York City
B.S., College of the City of New York, 1958
Rosen, Barbara J. — Dedham, Mass.
B.S., Simmons, 1956
M.S., Vassar, 1958
Rygorsky, Jerome E. — Brooklyn, N.Y.
A.B., New York University, 1958
Schiff, Eugene R. — Cincinnati, Ohio
A.B., Michigan, 1958
Schuster, Timothy S. — Hewlett, N.Y.
A.B., Harvard, 1958
Schwartz, Gabriel H. — Mount Vernon, N.Y.
A.B., Princeton, 1958
Seidenberg, Boyd H. — Bronxville, N.Y.
A.B., Columbia, 1958
Sherman, Spencer E. — Englewood, N.J.
A.B., Princeton, 1958
Silver, Stephen E. — Brooklyn, N.Y.
A.B., Princeton, 1958
Smelzer, Timothy H. — Pittsburgh, Pa.
A.B., Hamilton, 1958
Solomon, Henry A. — Brooklyn, N.Y.
A.B., Columbia, 1958
Steele, Thomas H. — New Castle, Pa.
B.S., Haverford, 1958
Stewart, Franz H. — Miami, Fla.
A.B., Emory, 1958
Talbot, Bernard — New York City
A.B., Columbia, 1958
Thompson, Robert D. — Akron, Ohio
A.B., Princeton, 1958
Ulin, Richard I. — Elmont, N.Y.
B.S., Franklin and Marshall, 1958
Valuska, James W. — Mingo Junction, Ohio
A.B., Princeton, 1958
Vogel, James M. — New York City
A.B., A.M., Wesleyan, 1958
Waldbaum, Robert S. — Brooklyn, N.Y.
A.B., Columbia, 1958
Walker, Barry R. — Reading, Pa.
A.B., Yale, 1958
Waterson, Karl William, Jr. — Summit, N.J.
B.S., Washington and Lee, 1958
Weinstein, Joel David — Memphis, Tenn.
A.B., Princeton, 1958
Weksler, Marc E. — Brooklyn, N.Y.
A.B., Swarthmore, 1958
White, John J., Jr. — Glen Rock, N.J.
A.B., Yale, 1958
Williams, Thomas A. — Racine, Wis.
A.B., Harvard, 1958
Winslow, Robert B. — Ridgefield, Conn.
A.B., Princeton, 1958
Wolf, Peter M. — Metairie, La.
A.B., Yale, 1957
Zeft, Howard J. — Philadelphia, Pa.
A.B., Princeton, 1958

CONDENSED ACADEMIC CALENDAR

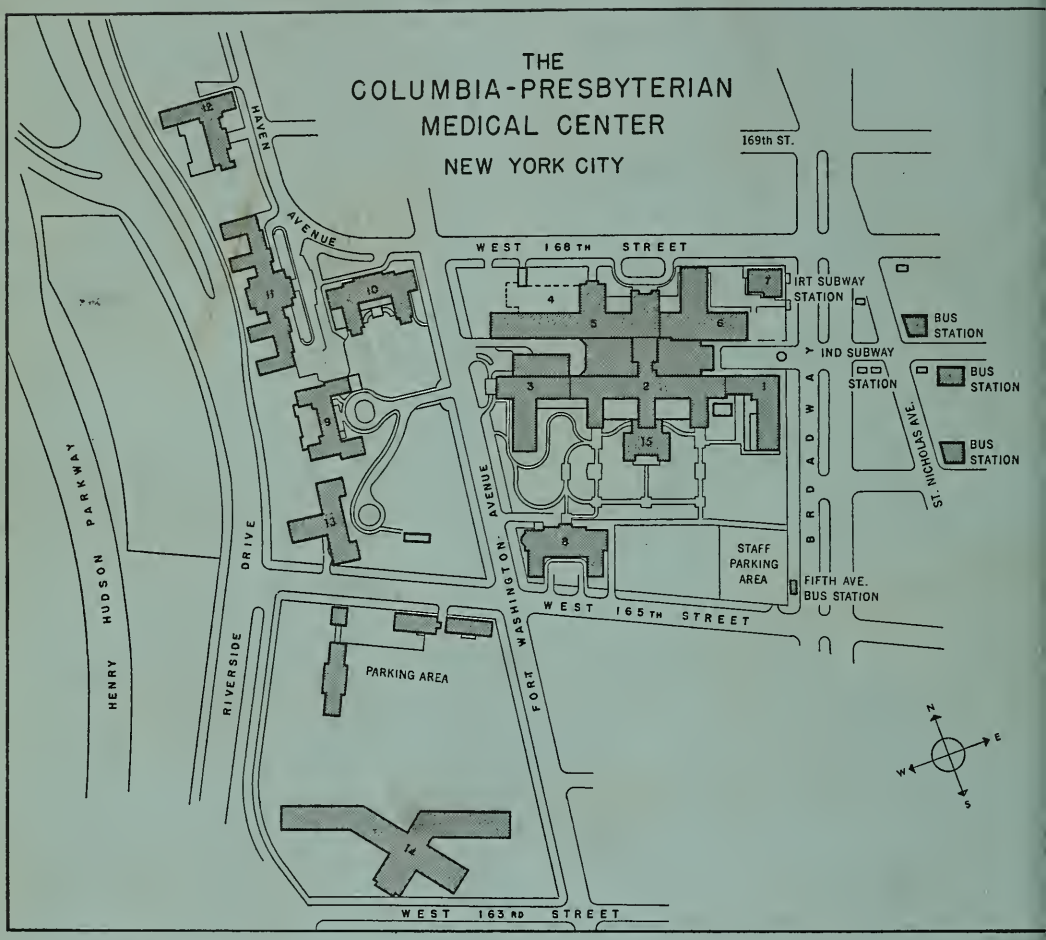
The complete Academic Calendar for the year 1958–1959 may be obtained from the Secretary of the University.

1958

May	22	Thursday, through May 23, Friday. Registration (including payment of University fee) for the Third- and Fourth-Year Classes.
June	**2**	**Monday. New academic year begins for the Third- and Fourth-Year Classes.**
August	1	Friday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
September	11	Thursday, through September 13, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
September	**15**	**Monday. Classes begin.**
October	8	Wednesday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D. to be awarded in October.
November	4	Tuesday. Election Day. Holiday.
November	27	Thursday. Thanksgiving Day. Holiday.
December	1	Monday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
December	**22**	**Monday, through**

1959

January	**3**	**Saturday. Christmas holidays.**
February	20	Friday. Last day for filing application for Cutting and Ellis Fellowships.
February	23	Monday. Washington's Birthday. Holiday.
March	2	Monday. Last day for filing application or renewal of application for all degrees and certificates, except doctoral degrees, to be conferred in June. The privilege of later application may be granted on payment of a late fee.
April	1	Wednesday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
March	**23**	**Monday, through March 28, Saturday. Easter holidays.**
May	25	Monday, through May 29, Friday. Final examinations.
May	30	Saturday. Memorial Day. Holiday.
June	**2**	**Tuesday. Conferring of degrees.**



1. BABIES HOSPITAL
2. PRESBYTERIAN HOSPITAL
   N. Y. ORTHOPAEDIC HOSPITAL
   SLOANE HOSPITAL
   SQUIER UROLOGICAL CLINIC
3. HARKNESS PAVILION
4. POWER HOUSE
5. COLLEGE OF PHYSICIANS AND SURGEONS
6. VANDERBILT CLINIC
   SCHOOL OF DENTAL AND ORAL SURGERY
7. N. Y. CITY DEPT. OF HEALTH
   SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE
8. INSTITUTE OF OPHTHALMOLOGY
9. MAXWELL HALL
10. NEUROLOGICAL INSTITUTE
11. N. Y. STATE PSYCHIATRIC INSTITUTE
12. BARD HALL
13. HARKNESS MEMORIAL HALL
14. FRANCIS DELAFIELD HOSPITAL, N.Y.C.
15. PAULINE A. HARTFORD MEMORIAL CHAPEL

C 2

COLUMBIA UNIVERSITY BULLETIN

SERIES FIFTY-NINE · NUMBER TWENTY-EIGHT · JULY 11, 1959

College of Physicians and Surgeons

OF THE FACULTY OF MEDICINE

1959-1960

COLUMBIA-PRESBYTERIAN MEDICAL CENTER

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VIEW OF BARD HALL FROM RIVERSIDE DRIVE

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THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The basic professional nursing program at Columbia prepares qualified young women to practice nursing effectively in hospitals, homes, and in the various types of health agencies. Nursing is interpreted as including health promotion through education, care of the sick and injured, and their restoration to a useful place in society. The program of study includes instruction in the basic sciences and nutrition; theory and supervised experience in the major clinical areas of medical, surgical, maternity, orthopedic, pediatric, psychiatric, and public health nursing. Completion of the program requires three academic years and two summer sessions, and leads to the award of the degree of Bachelor of Science from Columbia University. See the Nursing bulletin for further details.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 196 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 104 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 176-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergradu-

ate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,684 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,436 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 305 patients, including 60 in the Country Home at Far Rockaway.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of Medicine and surgery. It has 111 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 643 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,136 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 461 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 523 beds, including 80 beds for infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In Hospital." It has 190 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and twenty-five thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than three thousand periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The second and third floors are arranged to accommodate women students.

Rates for accommodations range from $250 to $500 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal, prepaid board plan. The present rate is $360 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The next entering class will register September 10-12, 1959. Application for admission is made for the next incoming class only, and requests for application forms may be addressed to the Dean one year in advance of matriculation. Every application must be accompanied by a check or money order for $10, payable to Columbia University, to cover the cost of processing the application. The fee is not returnable and is not credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is $75 for any period which is not longer than an autumn or spring term. During the summer, between Commencement and registration in September, the fee is $10.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays. The periods set aside for registration in each term are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the University fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of $6.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

University fee	
For all students for one academic year, payable in two installments	$ 48.00
Tuition fee	
For the full course in medicine for one academic year (or equivalent), payable in two installments	1,100.00
For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.	

Medical school athletic and recreational fee

This fee entitles students to use without charge the athletic and recreational facilities of Bard Hall, the residence for medical students. For all students, per academic year, payable in two installments 10.00

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year 30.00

Application fees

For admission	10.00
For each special examination	10.00
For renewal of application for a degree (see below)	1.00

Late fees

For late registration	6.00
For late application for each special examination	5.00
For late application, or renewal of application, for a degree	5.00

Rebates

The University fee, the student health and hospital fee, application fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, any unusual amount of breakage will be charged.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of $1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with microscopes of a satisfactory type. See page 55 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	Average	*Minimum*
Tuition and fees	$1,188	$1,188
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	$2,878	$2,442

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 54–56.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of $10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-third year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of a director.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

I. Recommended for advancement
II. Recommended for readmission to the same class
III. Recommended neither for advancement nor readmission
  A. Because of academic failure
  B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 25 and 26, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, and occupational therapy. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the School of Public Health and Administrative Medicine, the School of Nursing, and Courses in Physical and Occupational Therapy outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about $3,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is usually $2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about $3,000.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, A.M., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The usual stipend is about $4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about $900, the annual income of the fund.

Eckhouse. The Minnie Eckhouse Fellowship in neurological surgery enables the holder to follow the study of neurological surgery after graduation.

Ellis. Two George W. Ellis Fellowships are awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of each fellowship is about $2,200.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the chairman of the Department of Microbiology. The value of the fellowship is approximately $2,000.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the chairman of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about $1,800, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the dis-

eases of children in this country or abroad. The value of the fellowship is about $1,500, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about $2,500, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about $1,500, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about $1,000, the income of the fund which has accrued during four years. It will be awarded next in 1961–1962.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the chairman of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about $2,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1908. The Class of 1908 Gift was given on the fiftieth anniversary of the graduation of the class; the use of the income has not yet been determined.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

DeAngelis. The Anthony M. DeAngelis Scholarship Fund, established by Dr. Anthony M. DeAngelis, is available to a student of the fourth-year class.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory

of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John–Princeton. The St. John–Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is $200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the best thesis on puerperal fever. The value of the prize is about $70, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Executive Officer of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about $30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about $50, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about $50, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about $260, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about $200, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about $260. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally, it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who have a particular interest and competence in one of the basic science fields. Only members of the staff of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the selected basic science field is required. Additional requirements include passing a comprehensive examination, completion of a significant and original research project, submission of a dissertation, and passing an oral examination. Further information about the degree can be obtained from the departmental chairman or from the Dean's Office.

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the chest service of Bellevue Hospital, the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hos-

pital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange in their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

	First Year	HOURS
Anatomy 101FS	Microscopic anatomy	158
Anatomy 102ST	Systematic human anatomy	276
Anatomy 103FS and *Public Health 201*	Embryology—statistics—genetics	82
Anatomy 106S	The nervous system	160
Biochemistry 101F	Introductory biochemistry	168
Physiology 101TFo	Human physiology	154
Psychiatry 101FST	Introduction to human behavior	30
Pathology		44
	TOTAL	1,072

Second Year

		HOURS
Medicine 101T	Elementary physical diagnosis	99
Medicine 102S	Elementary clinical pathology	88
Medicine 103T	Introduction to medicine	10
Medicine 104T	Introduction to experimental medicine	8
Microbiology 101F	General microbiology	158
Microbiology 105F	Infection, immunity, etc.	52
Neurology 101T	Neurological examination	20
Pathology 101FST	General and special pathology	309
Pathology 102S	Neuropathology	36
Pharmacology 101ST	General and special pharmacology	131
Psychiatry 102S	Psychopathology	20
Public Health 101T	Parasitic diseases	51
Public Health 101F	Epidemiology; public health control	11
Surgery 101S	Introduction to surgery	12
Surgery 102T	Principles of surgery	60
	TOTAL	1,065

Third Year

Dermatology 203–204	34
Medicine 201–202, 203–204, 205–206	447
Neurology 207–208, 209–210	38
Obstetrics and Gynecology 201–202	56
Ophthalmology 201–202, 203–204	42
Orthopedic Surgery 201–202, 203–204	80
Otolaryngology 201–202, 203	40
Pediatrics 201–202, 207–208	208
Psychiatry 203–204	147
Public Health 203–204	76
Radiology 201–202, 206	24
Surgery 201–202, 204–205, 211–212	219
Electives	385
TOTAL	1,796

Fourth Year

Dermatology 205–206	28
Medicine 205–206, 207–208, 209–210, 221–222, 223–224, 225–226	465
Neurology 202	30
Obstetrics and Gynecology 203–204	280
Orthopedic Surgery 205–206	24
Pediatrics 203–204	140
Pharmacology 202	16
Psychiatry 205	15
Public Health 205	16
Radiology 203–204	16
Surgery 209–210, 213–214, 217–218, 219–220	292
Urology 201–202	36
Electives	280
TOTAL	1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*acting chairman*), F. A. Mettler (*Neurology*), M. R. Murray (*Surgery*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professor: E. B. Kaplan

Assistant Professors: C. A. Ely, D. D. Johnson, M. L. Moss, G. D. Pappas, W. M. Rogers, S. C. Shen

Associates: E. A. MacDowell, E. A. Manginelli

Instructors: J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, O. Hase, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman

Assistants: E. M. Jacoby, G. I. Kaye, M. C. Miksic

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Johnson, Pappas, Shen, Smelser, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. Interdepartmental course. 4 pts.

Lectures, demonstrations, and laboratory work correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106ST—The structure and function of the nervous system. First year. An interdepartmental course. 6 pts. Professors Carpenter and Noback (*Anatomy*), Rittenberg

(*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

Lectures, demonstrations, and laboratory.

SUMMER SESSION 1959

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professor: E. M. Papper (*chairman*)

Associate Professors: B. R. Fink, M. J. Frumin, S. H. Ngai

Assistant Professors: L. Brand, R. M. Epstein, E. C. Hanks, J. Henley, J. Kreiselman, V. Lauderdale, H. Rackow, E. Salanitre, H. Schwartz, C. C. Wycoff

Associates: M. M. Kritchman, F. Moya, R. W. Patterson, C. Sanger

Instructors: D. C. Brody, H. J. Cordner, S. M. Schnider, S. N. Steen

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, M. Karshan (*Dental and Oral Surgery*), K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*chairman*), D. Shemin, W. M. Sperry (*Psychiatry*), D. B. Sprinson, H. B. Waelsch (*Psychiatry*)

Associate Professors: S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: I. Clark (*Orthopedic Surgery*), M. A. Eisenberg, P. Feigelson, H. B. Gillespie, E. Hirschberg (*Medicine*), A. I. Krasna, A. Lajtha (*Psychiatry*), I. Mandl, H. Meltzer (*Psychiatry*), S. L. Miller, T. D. Price (*Urology*), H. S. Simms (*Pathology*), S. Solomon (*Obstetrics and Gynecology*), P. Srinivasan, B. Weiss (*Psychiatry*)

Assistant Professor of Medicine: A. Freedman

Associates: G. Alexander (*Psychiatry*), E. Borek, G. Cohen (*Psychiatry*), J. A. Dain, I. Goodwin (*Surgery*), O. R. Gabriel, W. Halpert, P. E. Hochstein (*Medicine*), P. Hoffman (*Medicine*), H. C. Lawler (*Neurology*), A. Linker (*Medicine*), M. E. Lombardo (*Urology*)

Associate in Medicine: G. B. Phillips

Research Associates: M. Berger (*Psychiatry*), I. J. Borowitz, G. Brawerman, D. D. P. Clarke, D. H. Clouet, I. Danishefsky, S. Ehrenpreis (*Neurology*), S. Greer, F. C. G. Hoskin (*Neurology*), M. J. Mycek, C. Pallavicini, A. Rosenberg, H. Shapiro, I. Sucher, W. Traub, P. E. Zimmering

Instructor: K. S. McCarty

Special Lecturer: H. H. Storch

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)
Assistant Professors: L. L. Abell (*Medicine*), E. H. Mosbach (*Medicine*)
Associate: M. M. Daly (*Medicine*)
Research Associate: J. Blum (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 111FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Loeb (*from Medicine*) in charge. See *Anatomy 114FFo.*

Biochemistry 211–212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215–216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Energetics and kinetics of enzyme action. Two hours. 3 pts. Professor Wilson and staff.

The application of the principles of thermodynamics and kinetics to problems of enzyme action.

Biochemistry 231–232—The biochemistry of the complex cellular constituents. 3 pts. The staff. W. 1–3.

Prerequisite: elementary biochemistry and organic chemistry, and the permission of the department.

This course will treat one of the following topics at an advanced level for an entire term: (*a*) the biochemistry of the proteins; (*b*) the biochemistry of the nucleic acids; (*c*) the biochemistry of the polysaccharides. In each case the chemistry, biogenesis, and biological action of the compounds will be discussed.

Biochemistry 301–302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

DERMATOLOGY

Professor: C. T. Nelson (*chairman*)
Associate Professor of Clinical Dermatology: B. M. Kesten
Associate Clinical Professors: L. P. Barker, G. F. Machacek, J. L. Miller
Assistant Professors: M. Silva, G. K. Steigleder
Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, T. Rosenthal

Associates: B. J. Chester, W. Curth, F. P. Lowenfish, L. Schweich
Instructors: B. Dobias, R. M. Montgomery, C. F. Post, M. H. Slatkin, M. B. Sloane
Assistants: M. Brodey, J. Eisert, J. T. Hearin, S. L. Sanders

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203–204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates.
At Vanderbilt Clinic.

Dermatology 205–206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Drs. Chester, Hearin, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Eight hours per week for twelve weeks. 3 pts. Professor Silva.
Hours to be arranged.
Given in collaboration with *Microbiology 118T.*

Dermatology 207–208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219–220—Histopathology of the skin. Professor Machacek.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: R. F. Loeb*
Professors: S. E. Bradley (*chairman*), A. Gellhorn (*Delafield Hospital*), F. M. Hanger, Jr., Y. Kneeland, Jr., G. A. Perera, J. V. Taggart
Professor of Biochemistry: K. Meyer
Professors of Clinical Medicine: C. Ragan, J. C. Turner
Clinical Professors: F. R. Bailey, A. L. Barach, H. Southworth
Clinical Professor of Psychiatry: G. E. Daniels
Associate Professor: A. P. Fishman
Associate Professors of Microbiology: C. Howe, C. Morgan
Associate Professors of Clinical Medicine: C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), S. C. Werner
Associate Clinical Professors: S. W. Lambert, W. B. Sherman
Assistant Professors: A. Freedman (*Biochemistry*), A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley
Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg
Assistant Professors of Medical Social Work: B. E. Judkins, E. R. Pritchard
Assistant Professors of Clinical Medicine: H. Aranow, J. M. Baldwin, Jr., S. W. Cos-

* On leave.

griff, F. E. Demartini, A. R. Lamb, Jr., J. H. Laragh, K. L. Pines, C. H. Plimpton, H. M. Ranney

Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, S. C. Fisk, M. J. Lepore, P. C. Lloyd, T. B. Russell, H. B. Wilcox, Jr.

Associates: G. P. Bradley, N. P. Christy, A. W. Grokoest, H. O. Heinemann, H. H. Holmes, G. A. Hyman, E. Leifer, R. B. McKittrick, G. W. Melcher, I. Mufson, G. B. Phillips (*Biochemistry*), G. M. Turino, H. O. Wheeler

Associates in Biochemistry: P. E. Hochstein, P. Hoffman, A. Linker

Research Associate: R. Grinberg

Instructors: S. F. Alexander, C. Alston, H. M. Anderson, A. T. Baker, G. J. Beck, R. M. Carey, C. K. Christian, H. P. Colmore, N. J. Conan, Jr., C. Gerbi, G. C. Hennig, D. A. Holub, J. I. Kitay, R. A. Kritzler, R. N. Lamont-Havers, K. A. McClane, G. H. McCormack, Jr., W. M. Manger, J. A. L. Mathers, J. I. Meltzer, E. Middleton, Jr., H. W. Neuberg, E. R. Pons, Jr., A. Sahagian-Edwards, R. J. Stock, T. L. Tyson, J. E. Ultmann, C. R. Wise, E. A. Wheaton, Jr., J. L. Zeffren

Instructor in Medical Social Work: N. Fike

Assistants: J. J. Barlow, J. W. Barry, J. T. Beatty, J. L. Berg, E. H. Bergofsky, E. M. Bramwell, A. L. Brewer, J. A. Coss, Jr., J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, D. M. Kanter, M. L. Marinovich, R. Noble, T. Richter, A. I. Snyder, C. J. Tyson, C. A. Vicens, J. A. Woods, B. M. Wright

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III

Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison

Associate in Biochemistry: T. Peters, Jr.

Instructors: J. C. Mithoefer, W. H. Mook, E. D. Rames

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards

Professor: A. F. Cournand

Clinical Professors: M. Dinnerstein, K. J. Thomson

Associate Professors: J. M. Jones, J. H. McClement

Associate Professor of Clinical Medicine: M. I. Ferrer

Associate Clinical Professors: C. R. Gross, H. McL. Riggins

Assistant Professors: W. A. Briscoe, H. W. Fritts

Assistant Professor of Clinical Medicine: R. Harvey

Assistant Clinical Professors: J. L. Leland, W. H. Stearns

Associates: O. S. Baum, M. E. Campbell, H. H. Coppersmith, W. R. Cunnick, Jr., L. H. Hellstrom, H. M. Hicks, A. Hoff, P. Wermer, C. H. Whitney

Associate in Biochemistry: A. M. Briscoe

Instructors: E. Alpert, R. F. Alsop, E. Bauman, H. J. Brown, H. S. Collins, R. J. Conroy, A. Davis, J. R. Edsall, B. B. Eichler, H. Fong, B. B. Garthwaite, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, D. J. O'Leary, H. Perrone, A. W. Phillips, H. G. Shaffeld, W. J. Sheils, D. G. Simpson, M. B. Smith, J. M. Sprague, A. M. Tunick

Assistants: S. C. Alexander, H. S. Ballard, L. L. Davis, J. C. DiJohn, L. Fishel, D. L. Hartman, S. N. Heller, J. I. Meltzer, A. Minzter, C. R. Ream, C. S. Yongue

Lecturers: M. Kuschner, W. E. Loring

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professors: Q. B. Deming, A. R. Wertheim
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professors of Biochemistry: L. L. Abell, E. H. Mosbach
Associates: H. Colcher, A. W. Feinberg, H. Lax
Associate in Biochemistry: M. M. Daly
Research Associate in Biochemistry: J. Blum
Instructor: L. A. Scarrone
Assistants: C. M. Dennehy, J. G. Edreira, J. S. Idriss, A. Sakamoto, E. Schmatolla

At Montefiore Hospital:

Clinical Professor: L. Leiter
Associate Clinical Professors: S. P. Schwartz, L. E. Siltzbach
Assistant Clinical Professors: H. Gross, A. Jezer, S. Melamed, J. B. Schwedel, I. D. Stein, B. Weingarten
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. J. W. Escher, M. Friedenson, E. Goldberger, B. E. Jacobson, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, I. L. Rubin, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, R. E. Weston, D. Young

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professors: C. K. Friedberg, S. Silver
Assistant Clinical Professors: D. Adlersberg, W. M. Hitzig, H. Horn, H. D. Janowitz, M. Mendlowitz, C. B. Rabin, L. R. Wasserman, T. F. Yu
Associates: M. F. Levitt, F. Schaffner
Instructors: M. E. Bader, R. A. Bader
Lecturers: S. Dack, I. E. Gerber, H. L. Jaffe, F. H. King

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At St. Luke's Hospital:

Associate Clinical Professors: G. J. Coffin, T. B. Van Itallie
Assistant Clinical Professors: J. G. Hilton, O. R. Jones, W. J. Pyles
Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling
Instructors: R. Case, J. Feltman, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Turner and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introduction to experimental medicine. Two hours a week for four weeks. Second year. No pts. Professor Bradley.

Medicine 104T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Bradley.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Cross and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210.* Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems, with a review of the pertinent pharmacology. See *Pharmacology 202.*

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

A. *Diabetes.* M. W. F. Floor 2. Limited to six students each morning. Professor Pines.
B. *Thyroid.* F. Floor 10. Limited to six students. Professors Werner and Aranow.
C. *Nephritis and hypertension.* Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

D. *Allergy.* M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
E. *Cardiac.* F. Floor 10. Professor M. I. Ferrer.
F. *Arthritis.* W. F. Floor 10. Limited to four students daily. Professor Ragan.

G. *Combined endocrine.* Tu. Floor 3. Limited to six students. Professor Werner and associates.

H. *Gastrointestinal.* M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230—Differential diagnosis. Fourth year. Professor Hanger.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231–232—Research in medicine. Under the direction of Professor Bradley.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235–236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

ELECTIVE COURSES IN MEDICINE

Medicine 237—Elective course in cardiorespiratory physiology. Fifteen lectures, all classes. Professors Cournand and Richards.

MICROBIOLOGY

John E. Borne Professor of Medical and Surgical Research: H. M. Rose (*chairman*)
Professors: E. A. Kabat (*Neurology*), B. C. Seegal
Professor of Bacteriology: C. W. Jungeblut
Associate Professors: S. M. Beiser, B. F. Erlanger, G. C. Godman, S. P. Halbert (*Ophthalmology*), C. Howe (*Medicine*), C. Morgan (*Medicine*), S. W. Tanenbaum
Assistant Professors: S. A. Ellison, A. W. Knox, E. Y. L. Lasfargues
Assistant Professor of Biochemistry: I. Mandl
Associates: E. W. Bassett, P. Breitenfeld, K. C. Hsu, D. Locatcher-Khorazo (*Ophthalmology*), G. Schiffman (*Neurology*)
Research Associates: A. D. Deitch, C. Morris, I. M. Mountain*
Assistants: P. E. Brenneisen, W. Cohen
Lecturer: M. Holden

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Six hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

* On leave.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. See *Dermatology 101T.*

Microbiology 251FST—Research in problems of immunology and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (*chairman*)
Professor of Clinical Neurological Surgery: J. E. Scarff
Clinical Professor: F. Cramer
Associate Professor: D. P. Purpura
Associate Professor of Clinical Neurological Surgery: L. A. Mount, J. Ransohoff
Assistant Professor: J. B. Campbell
Assistant Professor of Clinical Neurological Surgery: E. B. Schlesinger
Associate: T. J. Bridges
Instructors: J. W. Correll, E. M. Housepian
Assistants: S. A. Jacobson, J. G. McMurtey, C. W. Simpson

At Bronx Veterans Administration Hospital:

Clinical Professor: E. Krueger

NEUROLOGY

Professor: H. H. Merritt (*chairman*)
Professor of Neuropathology: A. Wolf
Professor of Anatomy: F. A. Mettler
Professor of Biochemistry: D. Nachmansohn
Professor of Microbiology: E. A. Kabat
Visiting Professor: F. G. Bergmann
Associate Professors: H. Grundfest, P. F. A. Hoefer
Associate Professors of Clinical Neurology: S. Carter, D. Sciarra, C. T. Vicale, M. D. Yahr
Associate Professor of Biochemistry: I. B. Wilson
Associate Professor of Neuropathology: D. Cowen
Assistant Professors: M. V. L. Bennett, R. A. Fishman, E. S. Goldensohn, J. F. Hammill, L. P. Rowland
Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J. Masselink, J. Moldaver
Assistant Professor of Neuropathology: I. H. Feigin
Assistant Clinical Professors: A. M. Frantz, C. C. Hare, M. Silbermann, S. F. Thomas, H. G. Weitzen
Associates: S. M. Cohen, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, R. Pietri, H. G. Thompson, Jr., F. T. Zimmerman
Associate in Biochemistry: H. C. Lawler
Associate in Microbiology: G. Shiffman

Associate in Psychiatry: L. R. Hewson
Research Associates: L. Epstein, S. M. Ferguson, S. Ginsburg, O. L. Gonzalez-Monteagudo, H. Hartford, L. T. Kremzner, J. A. Reilly, J. P. Reuben, R. L. Thompson, A. Watanabe, A. Weber, R. Whittam, L. Zablow
Research Associates in Biochemistry: S. Ehrenpreis, F. C. G. Hoskin
Instructors: R. S. Graham, J. L. O'Brien, G. F. Osler
Assistants: H. S. Barrows, R. A. Burns, W-D. Dettbarn, J. Hardie, W. K. Haas, F. P. Iorio, S. G. Penny, R. A. Ricca, M. R. Seiden, M. H. Triedman

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.
Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick
Assistant Clinical Professors: C. B. Booth, S. Solomon, F. D. Stern
Associates: R. B. Miller, J. H. Scharf
Instructors: K. D. Barron, E. L. Demuth, R. J. Greenberg
Assistants: T. Frigyesi, M. J. Kinosian

At Mt. Sinai Hospital:

Clinical Professor: M. Bender
Lecturer: H. Strauss

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for twenty weeks. Second year. Professors Merritt and Vicale.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicale.

Neurology 207–208—Neurology: examination of the patient and interpretation of findings. Fifteen hours a week for two weeks. Third year. Members of staffs.
At Neurological Institute and Montefiore Hospital.

Neurology 209–210—Neurology: the diseases of the nervous system. Lectures and demonstrations two hours a week for seven weeks. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241–242—Ward clinical clerkships. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*chairman*)
Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo

Clinical Professor: V. C. Damon
Associate Professors: A. A. Plentl, A. L. Southam, G. J. Vosburgh
Associate Professor of Biochemistry: S. Lieberman
Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer
Associate Professor of Clinical Medicine: J. W. Jailer
Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell
Assistant Professor of Biochemistry: S. Solomon
Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, J. B. Rearden, L. B. Shettles, H. Speert, A. J. B. Tillman
Assistant Clinical Professor: J. R. Montgomery
Associates: A. N. Fenton, E. A. Friedman, M. J. Gray, R. E. Hall, M. D. Laird, D. B. Moore, H. M. M. Tovell
Research Associates: H. Guthwin, W. G. Kelly, M. E. Long, L. L. Phillips
Instructors: D. J. Grandin, W. D. Todd
Assistants: G. G. Herman, R. L. O'Connell, T. J. Parks

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 201–202—Theory and practice of obstetrics and gynecology. Fifty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203–204—Fourth year: practical work in obstetrics and gynecology.

The practical work in the obstetrics and gynecology class is divided into six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Professor: A. G. De Voe (*chairman*)
Professor of Anatomy: G. K. Smelser

Professor of Biochemistry: Z. Dische
Professor of Clinical Ophthalmology: G. M. Bruce
Clinical Professors: A. B. Reese, M. C. Wheeler
Associate Professor of Microbiology: S. P. Halbert
Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)
Associate Clinical Professors: W. S. Knighton, C. A. Perera, J. A. C. Wadsworth
Assistant Clinical Professors: R. N. Berke, J. V. Flack
Assistant Professor: V. Weimar
Assistant Professor of Anatomy: G. A. Pappas
Assistant Professor of Physiology: C. V. Harding, Jr.
Assistant Professors of Clinical Ophthalmology: G. Clark, G. R. Merriam, Jr.
Associates: H. D. H. Brown, F. D. Carroll, R. M. Day, P. Knapp, F. Payne, E. F. Regan
Associate in Microbiology: D. Locatcher-Khorazo
Research Associates: O. Lowenstein, V. Ozanics, M. C. Rittler
Instructors: E. G. Bethke, A. W. Forrest, I. S. Jones
Assistants: C. J. Campbell, R. C. Collins, A. Donn, R. M. Ellsworth, F. H. Farrant, I. Loewenfeld
Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201–202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203–204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*chairman*)
Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin
Clinical Professor: L. A. Lantzounis
Associate Professor of Clinical Orthopedic Surgery: C. T. Ryder
Associate Clinical Professor: M. B. Watkins
Assistant Professor: C. A. L. Bassett
Assistant Professor of Biochemistry: I. Clark
Assistant Professors of Clinical Orthopedic Surgery: G. B. Ambrose, F. S. Craig, A. Garcia, S. R. Gaston, C. S. Neer II
Assistant Clinical Professors: E. C. Bragg, R. E. Carroll, D. K. McElroy
Instructors: J. W. Fielding, A. D. Pietra

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201–202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield.

Orthopedic Surgery 203–204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204–205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205–206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207–208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery participates in the correlative clinics in the first year, with a discussion of fractures, and also presents a series of lectures in connection with *Surgery 102T* and *Anatomy 105FS* in the second year.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*chairman*)
Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman
Associate Professor of Clinical Otolaryngology: J. Waltner
Assistant Professor of Clinical Otolaryngology: M. Basek
Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit
Associate: E. B. Bilchick
Instructors: P. Lindenberg, S. Whitfield
Assistant: P. D. Westerhoff
Lecturers: J. Eisenson, T. Fay

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman
Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201–202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Basek, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Conley, Eisenson, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225–226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226–227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Basek, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: H. P. Smith (*chairman*)
Professor: D. H. Andersen (*Pediatrics*)

Professor of Neuropathology: A. Wolf
Associate Professors: C. Z. Garber, H. D. Kesten, F. V. Lucas, D. M. Spain, E. E. Sproul, W. B. Stewart
Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)
Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)
Assistant Professors: D. W. Benninghoff, W. A. Blanc, D. E. Brown, F. P. Shepard, Jr., G. P. Vennart
Assistant Professor of Biochemistry: H. S. Simms
Assistant Professors of Neuropathology: G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)
Associate: B. N. Berg
Associates in Neuropathology: S. Donahue, L. M. Geller
Research Associates: S. Fiala, H. Kaunitz, A. S. Said
Instructors: J. J. DiRe, J. G. Gorman, H. J. Van Pennen
Instructor in Neuropathology: J. H. Sung
Assistants: D. N. Brown, E. B. Byrne, D. A. Lindberg, A. L. Middleton, Jr., K. R. Miller, E. A. Schenk, D. H. R. Truscott
Lecturer in Medical Illustrating: A. Feinberg

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn
Instructor: C. A. Ashley

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Goldwater Memorial Hospital:

Lecturer: M. Bevans

At Montefiore Hospital:

Professor: H. M. Zimmerman
Associate Professor: T. H. Spaet
Instructor: J. I. Berkman

At Mt. Sinai Hospital:

Professor: H. Popper
Associate Professor: S. Otani
Assistant Professors: R. Jahiel, L. Strauss
Instructor: M. Kaneko

At Roosevelt Hospital:

Assistant Professor: B. Kalfayan

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. First and second years. 14 pts. The first portion of this course is given during May, and the rest is given in the first and second trimesters of the following year. Professors Lucas, Smith, Stewart, and Vennart, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251–252—Research in pathology. Credit to be arranged.
Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: R. McIntosh (*chairman*)
Professor: H. E. Alexander
Professor of Pathology: D. H. Andersen
Associate Professor: C. M. Riley
Clinical Professor: C. D. May
Associate Professors of Clinical Pediatrics: S. Blumenthal, W. A. Silverman
Associate Clinical Professors: H. S. Altman, J. M. Brush, D. S. Damrosch, J. A. Wolff, C. L. Wood
Assistant Professors: P. A. di Sant'Agnese, M. M. Grumbach, R. C. Harris, A. G. Jameson, G. W. Mellin
Assistant Clinical Professors: W. A. Bauman, R. E. Moloshok, M. Singer
Associates: L. A. Boker, R. W. Culbert, E. F. Downs, S. P. Griffiths, W. R. Kessler, K. Sprunt
Research Associate: G. Leidy
Instructors: R. G. Ames, H. Anfanger, L. S. James (*Anesthesiology*), J. H. Maroney, R. M. Mickey, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, P. S. Strong, D. A. Wilcox, L. F. V. Wilking, Jr., A. G. Wilson
Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., J. P. Brady, W. M. Chemris, H. I. Cohen, S. J. Cohen, J. A. Costa, C. R. Denning, R. U. Donovan, J. C. Dower, J. Ducharme, L. G. M. Fox, O. L. Frick, M. J. Gates, B. German, T. B. Givan, Jr., H. Grossman, J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Homan, P. Hudson, M. H. Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, R. B. Mellins, K. M. Metcalf, W. L. Mitchell, B. C. Morgan, H. E. Poch, M. H. Rachelson, R. C. Richards, A. P. Rosen, J. G. Shiller, A. L. Sitarz, W. H. Smith, W. R. Stankewick, D. Stiles, J. C. Taylor, E. Ufford, R. West, D. L. Wethers, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin
Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes
Assistant Clinical Professor: A. L. Florman
Instructors: D. Gribetz, W. Henley, L. Steinfeld, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201–202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203–204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Riley and staff.

At Babies Hospital.

Student and hospital resident work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207–208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*chairman*)
Professor: S-C. Wang
Associate Professor: W. H. Sawyer
Assistant Professors: H. J. Bartelstone, F. G. Hofmann
Instructor: H-H. Wang
Lecturer: J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101FS—General and special pharmacology. One hour lecture or conference, first trimester; four hours lecture or conference and six hours laboratory, second trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine 209–210.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229–230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (*chairman*)
Professor of Physical Medicine: W. B. Snow
Associate Clinical Professor: M. Hoberman
Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch
Assistant Professor: S-J. Yue
Associate Professor and Director of Training for Occupational Therapists: M. L. Franciscus
Associate Professor and Director of Training for Physical Therapists: M. E. Callahan
Assistant Professor and Associate Director of Training for Occupational Therapists: M. E. Schnebly
Assistant Professor and Associate Director of Training for Physical Therapists: R. Dickinson
Assistant Professor of Occupational Therapy: M. Abbott
Associates in Occupational Therapy: D. H. Ericson, I. P. Robinault
Associate in Physical Therapy: K. T. San Julian
Instructors in Occupational Therapy: A. A. Deutsch, E. C. Kille, A. R. Trei, T. L. Wellerson
Instructors in Physical Therapy: S. Brunnstrom, L. H. Cairns, S. B. Feitelberg, B. Talmud
Assistant in Occupational Therapy: E. B. Berry
Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Brooklyn Veterans Administration Hospital:

Instructor: L-C. Y. Chen

At Mt. Sinai Hospital:

Assistant Clinical Professor: L. H. Wisham

At Manhattan Veterans Administration Hospital:

Instructor: L. T. Pai

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*chairman*)
Professor: W. S. Root
Clinical Professor: G. Wakerlin
Visiting Professor: M. Sato
Associate Professors: L. T. Cizek, W. L. Nastuk, W. W. Walcott
Assistant Professors: S. Chien, C. V. Harding, Jr. (*Ophthalmology*), W. R. Loewenstein, G. Mulheims, M. Nocenti
Research Associates: N. Ishiko, S. J. Socolar
Instructors: M. Blank, R. J. Dellenback, E. C. Gerst, G. R. Rowley, S. Usami
Assistants: P. Farnsworth, B. M. Hitzig, R. A. Weiss

At Mt. Sinai Hospital:
Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

Physiology 103Fo—Correlative clinic. First year.
See *Anatomy 114FFo.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.
Tu. Th. 3–5. Laboratory by arrangement.
History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measureing cardiac output, blood volume, etc.

Physiology 251–252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*chairman*), W. S. Langford, I. H. MacKinnon
Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz
Professors of Biochemistry: W. M. Sperry, H. Waelsch
Professor of Medical Psychology: J. Zubin (*Biometrics*)
Professor of Psychology: C. Landis
Clinical Professors: H. Bruch, G. E. Daniels, R. B. McGraw
Associate Professor of Clinical Psychiatry: P. Polatin
Associate Professors of Medical Psychology: A. Carr, W. N. Thetford
Associate Professor of Neuropathology: L. Roizin
Associate Clinical Professors: N. Ackerman, V. Bernard (*Public Health and Administrative Medicine*), G. Goldman, E. M. Gruenberg (*Epidemiology*), A. Karush, K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor: S. H. Frazier

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: J. Cattell, D. Dunton, B. Easser, L. Gidro-Frank, M. Glusman, G. A. Jervis, J. P. Lambert, S. Malitz, V. Moses, R. Moulton, J. D. Rainer, R. Sobel, J. Weber

Associates: G. Baker, W. A. Brooks, A. Cooper, E. B. Davis, W. Gaylin, R. Gilder, Jr., A. Goldfarb, S. Goodman, H. L. Hall, L. R. Hewson (*Neurology*), C. B. A. Pasquarelli, A. Polatin, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, M. Schreiber, D. Shapiro, R. Taylor, W. R. Watson, E. Welsch, V. Wilking

Associates in Biochemistry: G. Alexander, G. Cohen

Research Associates: G. B. Baroff, E. I. Burdock, B. Casselman, C. J. Dalmau (*Dental and Oral Surgery*), B. P. Dohrenwend, A. Falek, G. Gold, M. Gold, L. F. Jarvik, L. B. Kalinowsky, L. M. Kopeloff, B. Kohlsaat, J. Rutschmann, J. Schachter, K. Sterling, S. Sutton

Research Associate in Biochemistry: M. Berger

Instructors: K. Z. Altschuler, M. J. Aronson, A. B. Ballard, S. Berl, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, J. Cederquist, H. Chartock, L. Cobliner, L. Coleman, J. A. Cook, Z. DeFries, H. D. DeWitt, D. J. Dillon, D. B. Douglas, R. W. Evans, M. Farnham, E. Forster, O. Frankel, S. Furst, S. G. Gaylin, L. A. Hamilton, Jr., R. Hartogs, H. Hendin, W. Hockstetter, E. Huff, H. McHugh, T. Meltzer, A. M. Mesnikoff, A. Messer, J. S. Montgomery, J. O'Connor, J. F. Oliven, A. Peck, H. Potter, K. F. Prescott, W. C. Roehrig (*Medical Psychology*), P. E. Ryberg, K. Salzinger (*Medical Psychology*), D. Sanders (*Public Health and Administrative Medicine*), L. Scheinman, B. D. Schoenberg, J. Sheps, D. E. Sobel, S. Stirt, M. O. Strahl, C. D. Tait, R. S. Ward, W. F. Weber, J. Weinless, B. Wilkins

Assistants: A. R. Kaplan, D. Sank, J. S. Schachter, M. H. Wodin

Lecturers: H. G. Birch, H. Brill, H. Davidson, K. Goldstein, R. C. Hunt, A. Kardiner, L. S. Kubie, S. R. Lesser, D. Levy, J. A. Millet, F. J. O'Neill, S. Rado

Administrative Assistant: L. Porter

At Bronx V.A. Hospital:

Assistant Clinical Professor: B. L. Pacella

Associates: W. Brown, J. E. Pisetsky

At Creedmoor State Hospital:

Clinical Professor: L. Bender

Assistant Clinical Professor: J. R. Whittier

At Henry Ittleson Center for Child Psychiatry:

Assistant Clinical Professor: W. Goldfarb

At Manhattan State Hospital:

Assistant Clinical Professor: N. E. Stein

Instructors: H. D. B. Denber, I. Kesselbrenner

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman

Associate Clinical Professor: H. I. Weinstock

Instructors: L. Linn, B. C. Meyer
Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline
Assistant: G. Simpson
Research Assistants: Y. Taketomo, P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton
Assistant Clinical Professor: B. Balser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Thirty one-hour lectures and demonstrations concerned with the genetic, family, and cultural processes underlying healthy behavior, the nature of anxiety, the psychological methods of adaptation to anxiety, and the processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton.

Psychiatry 102S—Psychopathology. Twenty one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, Frazier, Thetford, and Watson.

Psychiatry 203–204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Gidro-Frank, Horwitz, Langford, R. MacKinnon, Polatin, and Stein, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Dr. A. Cooper and clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219–220—Psychometric methods. Forenoons, twice a week. Professors Carr and Thetford.

Practical exercises in mental measurements. Limited to two students.

Psychiatry 221–222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

ELECTIVE GRADUATE COURSE IN PSYCHIATRY

Psychiatry 223—Female and child psychiatry. Full time, September to June. Professors Kolb and MacKinnon, and staff. Fee: $800.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Biostatistics:

Professor: J. W. Fertig
Assistant Professors: A. P. Berger, G. L. Saiger
Research Associate: N. W. Chilton
Instructor: P. B. Michelsen

Community Psychiatry:

Associate Clinical Professors of Psychiatry: V. W. Bernard, E. M. Gruenberg
Instructor in Social Work: S. Utensky
Instructor in Psychiatry: D. S. Sanders

Epidemiology:

Professor: E. G. Clark
Adjunct Associate Professor: S. Frant
Assistant Professors: A. C. Gelman, M. D. Schweitzer
Instructors: F. R. Gearing, W. D. M. Harris
Assistant: A. B. Ritterband

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*chairman*)
Visiting Professor of Medical Sociology: E. A. Suchman
Associate Professors of Administrative Medicine: C. C. Clay, J. Elinson
Adjunct Associate Professors of Administrative Medicine: O. W. Anderson, M. Cherkasky, C. G. Roswell, R. P. Sloan, D. B. Straus
Adjunct Associate Professor of Hospital Administration: B. C. MacLean
Assistant Professors of Administrative Medicine: H. Baumgarten, Jr., B. Mintz, G. Pendall, F. W. van Dyke
Adjunct Assistant Professors of Administrative Medicine: E. M. Bluestone, G. A. Silver
Research Associates in Administrative Medicine: F. Berio, J. E. Bryan, R. B. Heiser, M. C. Maloney, C. F. Muller, R. A. Munoz, P. Norat, M. C. Scoville, J. J. Williams
Assistants in Administrative Medicine: M. N. Glasser, R. Loewenstein, M. J. Robertson, M. L. C. Rodriguez, J. G. Sachar
Administrative Assistant: L. Gerold

Nutrition:

Professors: W. H. Sebrell, Jr., E. L. Severinghaus
Adjunct Professor: N. S. Scrimshaw
Research Associate in Nutrition Sciences: S. A. Hashim

Occupational Medicine:

Professor: L. J. Goldwater
Adjunct Associate Professor: I. R. Tabershaw
Adjunct Assistant Professor: M. Kleinfeld
Instructor: H. Gilbert

Public Health Education:

Professor: G. Rosen
Adjunct Assistant Professor: I. S. Shapiro

Public Health Practice:

Associate Professor: M. W. Barnard
Adjunct Associate Professors: W. A. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James
Adjunct Associate Professor of Dental Public Health Practice: A. Bushel
Assistant Professor: A. J. Beckmann
Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown
Associate Professor of Medical Entomology: R. W. Williams
Associate Professor of Parasitology: K. L. Hussey
Adjunct Assistant Professor: H. B. Shookhoff
Research Associate in Parasitology: M. C. Dunn
Instructors: K. G. Dwork, I. D. Guicherit, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, P. R. Bozzo, G. Bugbee, H. R. Cohen, E. de Armas, P. M. Densen, W. R. Donovan, D. J. Doran, C. L. Erhardt, R. T. Fisher, C. N. Frey, R. S. Goodhart, M. Greenberg, A. E. Grosso, E. Hayt, H. H. Hughes, H. O. Humbert, M. A. Jacobs, N. H. Jolliffe, J. W. Kauffman, R. N. Kerst, J. H. Kinnaman, S. G. Kohl, D. L. Kurtz, G. W. Larimore, S. S. Lifson, J. Masur, B. F. Mattison, J. M. May, E. A. Mosso, J. J. Nelan, B. L. Oser, B. B. Palmer, M. J. Plishner, M. Radom, J. W. G. Rehn, F. B. Rogers, A. J. J. Rourke, L. Schneider, M. E. Segal, R. F. Sikes, J. E. Silson, J. E. Snyder, W. C. Spring, Jr., J. V. Terenzio, D. K. Tuller, S. B. Weinberg, L. Weiner, E. Wellin, B. Werne, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 201—Statistical analysis of medical and public health data. One hour a week for ten weeks. First year. Professor Fertig.

Public Health 101F—Introduction to epidemiology and public health control measures. One hour a week for eleven weeks. Subject matter coordinated with *Microbiology 105F* given by the Department of Microbiology. Second year. Staff.

Public Health 101T—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203–204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Staff.

Public Health 205—Forensic medicine and medical jurisprudence. One hour a week for sixteen weeks. Lectures. Fourth year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, etc. Students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned. A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

RADIOLOGY

Professors: J. Caffey, G. Failla (*Physics*), H. W. Jacox, E. H. Quimby (*Physics*), W. B. Seaman (*chairman*), J. M. Taveras

Associate Professors: R. J. Guttmann, H. H. Rossi (*Physics*), R. Rugh (*Biology*), J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, D. H. Baker, K. Ellis, G. S. Schwarz, N. duV. Tapley

Associates: M. Alpert, C. B. Braestrup, D. W. Johnson, L. Rottenberg, R. Schlaeger

Instructors: M. Alpert, H. L. Atkins, M. H. Becker, N. C. Chase, A. D. Crosett, Jr., F. M. Cummins, R. A. Evans, R. J. Hochstim, J. M. Moynahan, R. S. Yalow

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Hospital for Joint Diseases:

Associate: M. M. Pomeranz

At Montefiore Hospital:

Associate Clinical Professor: S. Fineman

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201—Diagnostic Radiology. Two hours a week for six weeks. Third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert, Cummins, and Schlaeger.

Radiology 202—Radiotherapy. One hour a week for eleven weeks. Third year. Includes lectures on the basic fundamentals of radiologic physics, elementary radiobiology, and

the principles of radiotherapy. Professors Jacox, Rossi, Rugh, Quimby, Tapley, and Dr. Crosett.

Radiology 203–204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Caffey, Seaman, Taveras, and Wells, and Dr. Alpert.

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox, Quimby, Rugh, and Tapley.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert, Crossett, and Schlaeger.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to the degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Quimby, Rossi, Rugh, Seaman, and Tapley, and Messrs. Braestrup and Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*chairman*)
Professors: V. K. Frantz, R. Lattes
Professor of Anatomy: M. R. Murray
Professors of Clinical Surgery: C. D. Haagensen, R. N. Schullinger, L. W. Sloan
Clinical Professor: R. H. Wylie
Associate Professors: A. Himmelstein, N. Lane
Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, G. F. Crikelair, R. A. Deterling, R. H. E. Elliott, Jr., D. V. Habif, E. L. Howes, M. R. Porter, T. V. Santulli
Associate Clinical Professors: H. S. F. Cooper, J. Ferrer
Assistant Professors of Clinical Surgery: R. B. Hiatt, D. M. Ju, F. R. McAllister, R. L. Moore, G. Sanger, J. Scudder, E. B. Self
Assistant Clinical Professor: E. N. Goodman
Associate in Biochemistry: I. Goodman
Research Associates: B. Johnson, G. Katz, M. S. Parshley, E. Peterson, M. S. Schwarz
Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., C. R. Feind, C. W. Findlay, C. O. Griffiths, Jr., F. P. Herter, H. F. Luddecke, I. R. Malm, A. J. Novack, J. Prudden, A. B. Voorhees, S. G. Weissman, P. D. Wiedel, M. Wolff

Research Assistant: H. H. Benitez
Assistants: R. Berry, R. E. Carlson, L. A. Johnson, J. A. Malcolm, A. M. Markowitz, DeW. C. Richey, F. C. Symonds, Jr.

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers
Assistant Clinical Professors: A. Jaretzki III, J. Mithoefer

At Bellevue Hospital:

Clinical Professor: K. M. Lewis
Associate Clinical Professor: H. C. Maier
Assistant Clinical Professors: M. Chamberlain, R. S. Mueller, D. M. Weeks
Associates: J. Ford, W. W. Heroy, H. A. Kingsbury, P. Kirschner, A. Lambert, K. M. Lewis, Jr., E. G. Stanley-Brown, W. A. Wichern, T. S. Winslow, Jr.
Instructors: T. M. McNeill, W. W. Miner, R. K. Snyderman, H. Stern, J. M. Wilson, Jr.
Assistants: L. Ballantyne, R. Matflerd, M. Moley, E. T. Quash

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt

At Mt. Sinai Hospital:

Clinical Professor: I. D. Baronofsky

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson
Associate Clinical Professors: F. H. Amendola, J. W. Littler, J. E. Thompson
Instructor: J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel
Associate Clinical Professors: A. E. W. Ada, P. C. Morton
Assistant Clinical Professors: H. F. Fitzpatrick, R. B. Stark
Instructors: R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery 205–206.*) Six hours a week for ten weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery 211–212, Radiology 201–202,* and *Orthopedic Surgery 203–204.*) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209–210—Outpatient clinical clerkships. Two months, combined with *Medicine 207–208*. Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211–212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery 204–205,* five and a half weeks. Third year. Professor Frantz.

Surgery 213–214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217–218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine 221–222.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221–222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Deterling and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*chairman*)
Professor of Clinical Urology: G. W. Fish
Associate Clinical Professors: C. T. Hazzard, P. B. Hudson, M. M. Melicow, J. N. Robinson*
Assistant Professor of Biochemistry: T. Price
Assistant Professors of Clinical Urology: T. J. Sullivan, R. J. Veenema, H. H. Zinsser
Associates: R. F. Seidel, R. C. Yeaw
Associate in Biochemistry: M. E. Lombardo
Research Associate: H. Seneca
Instructors: S. B. Braham, A. L. Dean, J. T. Donovan, S. Pulrang, A. Uson, A. T. Willetts
Assistants: J. E. Bowers, T. D. Boyes, P. F. Crutchlow, C. A. Furey, O. M. Lilien, M. B. Pincus, M. J. Pirozzi, M. S. Roberts, T. A. Viscelli, F. Yandel, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201–202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professors Lattimer and Fish, and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

* On leave.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
G. Failla, *Professor of Radiology (Physics)*
Edith H. Quimby, *Professor of Radiology (Physics)*
Charles O. Beckman, *Professor of Chemistry*
W. S. Root, *Professor of Physiology*
T. Hayashi, *Professor of Zoology*
T. Duane Price, *Assistant Professor of Biochemistry*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring session. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1960 and in alternate years thereafter.*
W. F. 4–6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115–116, Mathematics 104, Chemistry 91–92,* and *Zoology 141,* or their equivalents.

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

Gross Anatomy. Required: *Textbook of Anatomy,* Cunningham, $17.50; *Atlas of Descriptive Human Anatomy, Vol. III, Sobotta,* $17.50; Dorland's or Stedman's *Medical Dictionary,* $12.50.

Microscopic Anatomy. Required: *Bailey's Textbook of Histology* (14th ed.), $11. Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, $11.

Neuroanatomy. Required: *Human Neuroanatomy* (4th ed.), Strong and Elwyn, approx. $8.50; *Laboratory Manual for Neuroanatomy.* Recommended but not required: *The Anatomy of the Nervous System* (10th ed.), Ranson and Clark, $9.50.

Embryology. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, $9.50; *Human Embryology* (2d ed.), Patten, $12.

Biochemistry. Required: *Principles of Biochemistry,* White, Handler, Smith, Stetten (2d ed.), approx. $15; *Laboratory Manual* (1959), Staff, $2.50.

Dermatology. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, $13.50; *Practical Dermatology,* Lewis (2d ed.), $8.00; *Syphilis, Its Course and Management,* Thomas, $5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, $6.50.

Medicine. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, $4.00; *Clinical Hematology,* Wintrobe, Lea, and Febiger (4th ed.), $15; *Biochemistry of Disease* (2d ed.), Bodansky, Macmillan, $12; *Textbook of Medicine* (10th ed.), Cecil and Loeb, approx. $17.50; *Principles of Internal Medicine,* Harrison (2d ed.), $18.50; *Classical Descriptions of Disease,* Major, $8.50. Reference textbooks: *Loose-Leaf Medicine,* Oxford, $150.

Microbiology. Required: *Laboratory Manual in Microbiology and Immunology,* $3.00; *Dubos' Bacterial and Mycotic Infections of Man* (3d ed.) and *Rivers' Viral and Rickettsial Infections of Man* (3d ed.), $17 per set.

Neurology. Required: *The Clinical Examination of the Nervous System,* Monrad-Krohn, (11th ed.), $9.50, or *The Neurologic Examination,* DeJong, (2d ed.), $20; and one of the following: *Textbook of Neurology* (2d ed.), Merritt, $12.50; *A Textbook of Clinical Neurology,* Wechsler (8th ed.), $11; *Diseases of the Nervous System,* Brain, $11.50. Recommended but not required: *Basis of Clinical Neurology,* Brock, $7.00; *Diseases of the Nervous System in Infancy, Childhood and Adolescence,* Ford, $18.50.

Obstetrics and Gynecology. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, $11. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, $14.

Ophthalmology. Recommended: *May's Diseases of the Eye* (22d rev. by C. A. Perera), $6; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, $8.00.

Orthopedic Surgery. Required: *Shands' Hand Book of Orthopedic Surgery,* St. Louis, Mosby (5th ed.), $9.75; *Manual of Orthopaedic Surgery,* American Orthopedic Association; *A Manual of Fractures and Dislocations,* Stimson (3d ed.), $4.50. Recommended but not required: *The Management of Fractures,* Key and Conwell, $20; *Fractures* (2 vols.), Watson-Jones, $22.

Otolaryngology. Required (one of the following): *Specialties in General Practice* (chapters on ear, nose, and throat), Cecil (2d ed.), $16; *Basic Otolaryngology,* F. Lederer and A. R. Hollender, $7.50.

Pathology. Required for *101FST* (one of the following): *Textbook of Pathology,* Boyd, $12.50; *Human Pathology,* Karsner, $15; *Pathology,* Anderson, $16; *Robbins' Textbook of Pathology,* $18.

Pediatrics. Required (one of the following): *Holt Pediatrics,* Holt and McIntosh, $15; *Textbook of Pediatrics,* W. E. Nelson, $15. Recommended but not required: *Growth and Development of Children,* Watson and Lowrey (3d ed.), $7.75; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, $28; *Common Contagious Diseases,* Stimson and Hodes, $8.50.

Pharmacology. Required: *The Pharmacological Basis of Therapeutics,* Goodman and Gilman (2d ed.), $17.50.

Physiology. Required: *Philip Bard's Medical Physiology,* $14.

Psychiatry. Required: *Textbook of Psychiatry* (5th ed.), Noyes and Kolb, $8.00. Recommended but not required: *Introduction to Psychiatry,* English and Finch (2d ed.), $6.95.

Public Health. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, $14; *Preventive Medicine and Public Health* (2d ed., 1956), W. G. Smillie, $7.50; *Preventive Medicine for the Doctor in the Community,* H. R. Leavell and E. G. Clark, $10; *Rosenau, Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, $15.

Radiology. Recommended but not required: *Radiology for Medical Students,* Hodges, Lampe, and Holt, $8.50.

Surgery. Required: *Introduction to Surgery,* Franz and Harvey (4th ed.), $6.00. Recommended but not required: *Surgery Principles and Practice,* Allen and others, $16; *Textbook of Surgery* (6th ed.), Christopher, $15.50; *General Surgery* (6th ed.), Cole and Elman, $12.50; *Manual of Anesthesiology,* Schwartz and others, $4.25; *Surgery,* Homans, $10.

Urology. Recommended but not required: *General Urology,* Smith, $4.50; *Principles of Urology,* Campbell, $9.50.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $381

to $617. Each student should also provide himself with a substage lamp. Microscopes may be rented at $6 a month or $52 for a school year. A limited supply of binoculars are available also for rental at $12 a month, or $100 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS INCLUDING THOSE IN THE GRADUATE PROGRAM

ABBOTT, MARGUERITE, *Assistant Professor of Occupational Therapy;* B.S., Tufts, 1947; O.T.R., Boston, 1925

ABELL, LIESE L., *Assistant Professor of Biochemistry;* Ph.D., Frankfurt, 1935

ACKERMAN, NATHAN, *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1929; M.D., 1933

ADA, ALEXANDER E. W., *Associate Clinical Professor of Surgery;* B.A., Queen's (Ontario), 1923; M.D., 1926

ADLERSBERG, DAVID, *Assistant Clinical Professor of Medicine;* M.D., Vienna, 1921

AGATE, FREDERICK J., *Associate Professor of Anatomy;* A.B., Columbia, 1932; Ph.D., 1949

ALEXANDER, HATTIE E., *Professor of Pediatrics;* A.B., Goucher, 1923; M.D., Johns Hopkins, 1930

ALTMAN, HARRY S., *Associate Clinical Professor of Pediatrics;* M.D., New York University, 1921

ALTMANN, FRANZ, *Clinical Professor of Otolaryngology;* M.D., Vienna, 1925

AMBROSE, GEORGE B., *Assistant Professor of Clinical Orthopedic Surgery;* A.B., Columbia, 1940; M.D., 1943

AMENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery;* B.S., College of the City of New York, 1923; M.D., Cornell, 1927

AMOLS, WILLIAM, *Assistant Professor of Clinical Neurology;* A.B., New York University, 1938; M.D., 1942

ANDERSEN, DOROTHY H., *Professor of Pathology;* A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935

ANDERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine;* A.B., Wisconsin, 1937; A.M., 1938; A.B., Michigan, 1940; Ph.D., 1948

ANTELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice;* M.D., Long Island College, 1926; M.P.H., Harvard, 1939

ANTENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine;* B.S., College of the City of New York, 1926; M.D., Columbia, 1930

ARANOW, HENRY, *Assistant Professor of Clinical Medicine;* A.B., Harvard, 1935; M.D., Columbia, 1938

BACHMAN, ARNOLD L., *Assistant Professor of Radiology;* B.S., New York University, 1931; M.D., 1934

BAILEY, FREDERICK R., *Clinical Professor of Medicine;* A.B., Princeton, 1924; M.D., Johns Hopkins, 1928

BAKER, DANIEL C., Jr., *Clinical Professor of Otolaryngology;* A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939

BAKER, DAVID H., *Assistant Professor of Radiology;* M.D., Boston, 1951

BALDWIN, JOHN M., Jr., *Assistant Professor of Clinical Medicine;* M.D., Columbia, 1939

BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry;* A.B., Rochester, 1926; M.A., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937

BARACH, ALVAN L., *Clinical Professor of Medicine;* M.D., Columbia, 1919

BARKER, HAROLD G., *Associate Professor of Clinical Surgery;* A.B., Utah, 1939; M.D., Pennsylvania, 1943

BARKER, LESLIE P., *Associate Clinical Professor of Dermatology;* M.D., Columbia, 1927

BARNARD, MARGARET W., *Associate Professor of Public Health Practice;* A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935

BARONOFSKY, IVAN D., *Clinical Professor of Surgery;* B.S., California, 1938; Ph.D., Minnesota, 1947; M.D., Marquette, 1943

BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology;* B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945

BASEK, MILOS, *Assistant Professor of Clinical Otolaryngology;* M.D., Charfe's, 1945

BASSETT, CHARLES A. L., *Assistant Professor of Orthopedic Surgery;* M.D., Columbia, 1948

BAUMAN, WILLIAM A., *Assistant Clinical Professor of Pediatrics;* B.S., Harvard, 1943; M.D., Columbia, 1947

BAUMGARTEN, HAROLD, Jr., *Assistant Professor of Administrative Medicine;* A.B., Willamette, 1945

BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice;* A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945

BEGG, CHARLES F., *Assistant Professor of Pathology;* A.B., Boston, 1935; M.D., Harvard, 1939

BEISER, SAM M., *Associate Professor of Microbiology;* Ph.D., Columbia, 1951

BENDER, LAURETTA, *Clinical Professor of Psychiatry;* M.A., Chicago, 1923; M.D., State Univ. of Iowa, 1926

BENDER, MORRIS B., *Clinical Professor of Neurology;* M.D., Pennsylvania, 1931

BENNETT, MICHAEL V. L., *Assistant Professor of Neurology;* Ph.D., Oxford, 1957

BENNINGHOFF, DANIEL W., *Assistant Professor of Pathology;* A.B., Yale, 1949; M.D., Columbia, 1953

BERGER, AGNES P., *Assistant Professor of Biostatistics;* A.M., Columbia, 1944; Ph.D., Budapest, 1939

BERGMANN, FELIX G., *Visiting Professor of Neurology;* M.D., Berlin, 1933; Ph.D., 1933

BERKE, RAYNOLD N., *Assistant Clinical Professor of Ophthalmology;* A.B., Minnesota, 1926; M.B., 1928; M.D., 1929

BERNARD, VIOLA W., *Associate Clinical Professor of Psychiatry;* B.S., New York University, 1933; M.D., Cornell, 1936

BICKERMAN, HYLAN, *Associate Clinical Professor of Medicine;* A.B., Columbia, 1934; M.D., New York University, 1939

BLAKEMORE, ARTHUR H., *Associate Professor of Clinical Surgery;* B.S., William and Mary, 1918; M.D., Johns Hopkins, 1922

BLANC, WILLIAM A., *Assistant Professor of Pathology;* B.A., College of Geneva, 1940; M.D., University of Geneva, 1947; Ph.D., 1952

BLUESTONE, EPHRAIM M., *Adjunct Assistant Professor of Administrative Medicine;* B.S., Columbia, 1913; M.D., 1916

BLUMENTHAL, SIDNEY, *Associate Professor of Clinical Pediatrics;* B.S., Iowa, 1933; M.D., 1933

BOOTH, CARL B., *Assistant Clinical Professor of Neurology;* A.B., Union, 1938; M.D., Albany, 1942

BORDLEY, JAMES, III, *Clinical Professor of Medicine;* Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927

BRADLEY, STANLEY E., *Professor of Medicine;* A.B., Johns Hopkins, 1934; M.D., Maryland, 1938

BRAGG, EVERETT C., *Assistant Clinical Professor of Orthopedic Surgery;* A.B., Cornell, 1936; M.D., 1940

BRAND, LEONARD, *Assistant Professor of Anesthesiology;* B.S., Yale, 1946; M.D., Columbia, 1949

BRISCOE, WILLIAM A., *Assistant Professor of Medicine;* B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951

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TAPLEY, NORAH DUV., *Assistant Professor of Radiology;* A.B., Mount Holyoke, 1945; M.D., Columbia, 1949

TAUSIG, DANIEL P., *Assistant Professor of Anesthesiology;* M.A., Columbia, 1933; M.D., 1937

TAVERAS, JUAN M., *Professor of Radiology;* B.S., Normal School, Santiago, 1937; M.D., Santiago, 1943; M.D., Pennsylvania, 1949

TAYLOR, GURNEY, *Assistant Clinical Professor of Medicine;* A.B., Williams, 1925; M.D., Pennsylvania, 1930

TAYLOR, HOWARD C., *Professor of Obstetrics and Gynecology;* Ph.B., Yale, 1920; M.D., Columbia, 1924

THETFORD, WILLIAM N., *Associate Professor of Medical Psychology;* A.B., DePauw, 1944; Ph.D., Chicago, 1949

THOMAS, E. DONNALL, *Associate Clinical Professor of Medicine;* A.B., Texas, 1941; M.A., 1943; M.D., Harvard, 1946

THOMAS, SAMUEL F., *Assistant Clinical Professor of Neurology;* A.B., Princeton, 1936; M.D., Columbia, 1940

THOMPSON, JAMES E., *Associate Clinical Professor of Surgery;* A.B., Texas, 1924; M.D., 1927

THOMSON, K. JEFFERSON, *Associate Clinical Professor of Medicine;* M.D., Harvard, 1931

TILLMAN, ALVIN J. B., *Assistant Professor of Clinical Obstetrics and Gynecology;* A.B., Columbia, 1924; M.D., 1927

TRUSSELL, RAY E., *Joseph R. DeLamar Professor of Administrative Medicine; Associate Dean (Public Health);* A.B., Iowa, 1936; M.D., 1941; M.P.H., Johns Hopkins, 1947

TURNER, JOSEPH C., *Professor of Clinical Medicine;* A.B., Columbia, 1929; M.D., 1933; Med.-Sc.D., 1940

VAN DYKE, FRANK W., *Assistant Professor of Administrative Medicine;* A.B., Union College, 1939; M.S., Columbia, 1954

VAN DYKE, HARRY B., *David Hosack Professor of Pharmacology;* B.S., Chicago, 1918; Ph.D., 1921; M.D., Rush, 1923

VAN ITALLIE, THEODORE B., *Associate Clinical Professor of Medicine;* B.S., Harvard, 1941; M.D., Columbia, 1945

VENNART, GEORGE P., *Assistant Professor of Pathology;* A.B., Wesleyan, 1948; M.D., Rochester, 1953

VICALE, CARMINE T., *Associate Professor of Clinical Neurology;* A.B., New York University, 1929; M.D., 1933

VON LACKUM, WILLIAM H., *Assistant Clinical Professor of Orthopedic Surgery;* B.S., Iowa, 1916; M.D., 1918; Med.Sc.D., Columbia, 1935

VOSBURGH, GILBERT J., *Associate Professor of Obstetrics and Gynecology;* A.B., Princeton, 1938; M.D., Johns Hopkins, 1942

WADSWORTH, JOSEPH A. C., *Associate Clinical Professor of Ophthalmology;* B.S., Davidson, 1935; M.D., Duke, 1939

WAELSCH, HEINRICH B., *Professor of Biochemistry;* M.D., Prague, 1929; Ph.D., 1930

WAKERLIN, GEORGE, *Clinical Professor of Physiology;* B.S., Chicago, 1925; Ph.D., 1926; M.D., Rush, 1926

WALCOTT, WILLIAM W., *Associate Professor of Physiology;* A.B., Yale, 1933; Ph.D., Columbia, 1944

WALTNER, JULES, *Associate Professor of Clinical Otolaryngology;* M.D., University of Debrecen (Hungary), 1933

WANG, SHIH-CHUN, *Professor of Pharmacology;* B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940

WASSERMAN, LOUIS R., *Assistant Clinical Professor of Medicine;* A.B., Harvard, 1931; M.D., Rush, 1935

WATKINS, MELVIN B., *Associate Clinical Professor of Orthopedic Surgery;* A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936

WEBER, JOHN, *Assistant Clinical Professor of Psychiatry;* A.B., Duke, 1939; M.D., Yale, 1943

WEEKS, DAVID M., *Assistant Clinical Professor of Surgery;* M.D., Michigan, 1927

WEIMAR, VIRGINIA, *Assistant Professor of Ophthalmology;* B.S., Oregon, 1944; M.S., 1947; Ph.D., Pennsylvania, 1951

WEINGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine;* M.D., Frankfort, 1922

WEINSTOCK, HARRY I., *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1920; M.D., 1923

WEISS, BENJAMIN, *Assistant Professor of Biochemistry;* B.S., Iowa, 1944; Ph.D., Illinois, 1949

WEITZEN, HYMAN G., *Assistant Clinical Professor of Neurology;* A.B., New York University, 1934; M.D., 1938

WELLS, JOSEPHINE S., *Associate Professor of Radiology;* A.B., Barnard, 1932; M.D., Columbia, 1938

WERNER, SIDNEY C., *Associate Professor of Clinical Medicine;* A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937

WERTHEIM, ARTHUR R., *Associate Professor of Medicine;* A.B., Dartmouth, 1935; M.D., Jefferson, 1939

WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology;* A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938

WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry;* A.B., Harvard, 1939; M.D., Columbia, 1943

WILCOX, ELIZABETH, *Assistant Professor of Nursing;* A.B., Mount Holyoke, 1924

WILCOX, HERBERT B., JR., *Assistant Clinical Professor of Medicine;* A.B., Yale, 1930; M.D., Columbia, 1934

WILLIAMS, ROGER W., *Associate Professor of Medical Entomology;* B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947

WILSON, IRWIN B., *Associate Professor of Biochemistry;* B.S., College of the City of New York, 1941; M.A., Columbia, 1947; Ph.D., 1948

WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation;* B.S., New York University, 1938; M.D., Chicago, 1943

WOLCOTT, DELPHINE, *Assistant Professor of Nursing;* B.S., Columbia, 1926

WOLF, ABNER, *Professor of Neuropathology;* A.B., Columbia, 1923; M.D., 1926

WOLF, BERNARD S., *Associate Clinical Professor of Radiology;* B.S., New York University, 1932; M.D., 1936

WOLFF, JAMES A., *Associate Clinical Professor of Pediatrics;* A.B., Harvard, 1935; M.D., New York University, 1940

WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics;* B.S., New York University, 1926; M.D., Yale, 1930

WOODMAN, DE GRAAF, *Clinical Professor of Otolaryngology;* B.S., Cornell, 1917; M.D., 1926

WYCOFF, CHARLES C., *Assistant Professor of Anesthesiology;* A.B., California, 1941; M.D., 1943

WYLIE, ROBERT H., *Clinical Professor of Surgery;* Ph.B., Yale, 1927; M.D., Columbia, 1931

YAHR, MELVIN D., *Assistant Dean; Associate Professor of Clinical Neurology;* A.B., New York University, 1939; M.D., 1943

YU, T'SAI-FAN, *Assistant Clinical Professor of Medicine;* B.A., Ginling College, 1932; M.D., Peiping Union Medical College, 1936

YUE, SHYH-JONG, *Assistant Professor of Physical Medicine and Rehabilitation;* M.D., National College of Medicine, Shanghai, 1938

ZAMENHOF, STEPHEN, *Associate Professor of Biochemistry;* M.E., Warsaw Polytechnic, 1933; D.Tech.Sc., 1936; Ph.D., Columbia, 1949

ZIMMERMAN, HARRY M., *Professor of Pathology;* B.S., Yale, 1924; M.D., 1927

ZINSSER, HANS H., *Assistant Professor of Clinical Urology;* B.S., Harvard, 1938; M.D., Columbia, 1942

ZINTEL, HAROLD A., *Clinical Professor of Surgery;* B.S., Akron, 1934; M.D., Pennsylvania, 1938

ZUBIN, JOSEPH, *Professor of Medical Psychology;* A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1932

SLANETZ, CHARLES A., *Curator of Animal Husbandry;* B.S., Connecticut, 1922; M.S., 1923; Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 27 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1959

Allen, Fred H.—University of Virginia, Charlottesville, Va.
Alving, Ralph E.—Jackson Memorial Hospital, Miami, Fla.
Applebaum, William S.—Montefiore Hospital, New York City
Baker, Lester—Hospital of the University of Pennsylvania, Philadelphia, Pa.
Barrett, C. Redington—St. Luke's Hospital, New York City
Barth, Donald E.—Bellevue Hospital, New York City
Baum, Richard S.—Philadelphia General Hospital, Philadelphia, Pa.
Befeler, David—St. Vincent's Hospital, New York City
Benjamin, William B.—Mary Fletcher Hospital, Burlington, Vt.
Berkman, Peter M.—Boston City Hospital, Boston, Mass.
Brittin, Geoffrey M.—Johns Hopkins Hospital, Baltimore, Md.
Burks, William P.—St. Luke's Hospital, New York City
Byrne, Earl B.—Presbyterian Hospital, New York City
Cantwell, Nelson H.—Bellevue Hospital, New York City
Carter, James R., Jr.—Massachusetts General Hospital, Boston, Mass.
Civan, Mortimer M.—Presbyterian Hospital, New York City
Clark, Cornelius J.—Albany Hospital, Albany, N.Y.
Cohen, Howard—Mount Sinai Hospital, New York City
Collier, Robert H.—University of California Hospital, San Francisco, Calif.
Collins, John A.—Presbyterian Hospital, New York City
Costantin, LeRoy L.—Presbyterian Hospital, New York City
Cukier, Daniel S.—Long Island Jewish Hospital, New York City
Davidoff, Frank F.—Massachusetts General Hospital, Boston, Mass.
Davidson, Charles B.—Presbyterian Hospital, New York City
David, Jessica G.—St. Luke's Hospital, New York City
Druss, Richard G.—Massachusetts Memorial Hospital, Boston, Mass.
Edgar, Malcolm S., Jr.—St. Luke's Hospital, New York City
Eidenger, David—Royal Victoria Hospital, Montreal, Que.
Eleuteri, A. John—Johns Hopkins Hospital, Baltimore, Md.
Epstein, Manfred D.—Bellevue Hospital, New York City
Faust, Kenneth J.—Los Angeles County Hospital, Los Angeles, Calif.
Ferber, Andrew S.—Michael Reese Hospital, Chicago, Ill.
First, Robert A.—Peter Bent Brigham Hospital, Boston, Mass.
Forde, Kenneth A.—Bellevue Hospital, New York City
Foulke, John D.—North Carolina Baptist Hospital, Winston-Salem, N.C.
Freeman, Guy C.—Kings County Hospital, Brooklyn, N.Y.
Gardner, Lee Robbins—St. Luke's Hospital, New York City
Gilfillan, John T., Jr.—Los Angeles County Hospital, Los Angeles, Calif.
Ginsberg, George L.—Jackson Memorial Hospital, Miami, Fla.
Ginsberg, Stanley A.—Mount Sinai Hospital, New York City
Gordon, I. Bradley—Michael Reese Hospital, Chicago, Ill.
Grainger, David W.—Presbyterian Hospital, New York City
Gutmann, Ludwig—University Hospitals, Madison, Wis.
Herskovic, Teodoro—Mount Sinai Hospital, New York City
Hillman, Robert S.—Presbyterian Hospital, New York City
Hollander, Charles—Bellevue Hospital, New York City
Hulka, Barbara S.—U.S. Public Health Service
Izard, Mark W.—Hartford Hospital, Hartford, Conn.
Jesse, Mary Jane—Bronx Municipal Hospital, New York City
Johnson, Theodore H.—University of Chicago Clinics, Chicago, Ill.
Jones, Ellyn P.—Ohio State University Hospital, Columbus, Ohio
Jones, Robert H.—Jackson Memorial Hospital, Miami, Fla.
Kanter, Ira E.—Beth Israel Hospital, Boston, Mass.
Kaplan, Edward S.—Presbyterian Hospital, New York City
Keller, Jean B.—University of Utah Hospitals, Salt Lake City, Utah
Kundel, Harold L.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Lietman, Paul S.—Johns Hopkins Hospital, Baltimore, Md.
Linwood, Richard A.—St. Luke's Hospital, New York City
London, Fred A.—Jackson Memorial Hospital, Miami, Fla.
Ludes, Bernard F.—University of Minnesota Hospitals, Minneapolis, Minn.
MacDonald, Carlton A.—St. Luke's Hospital, New York City
McConnell, Donald V.—Johns Hopkins Hospital, Baltimore, Md.
McHugh, Burton P.—St. Luke's Hospital, New York City
McKinney, Alexander S.—St. Luke's Hospital, New York City
Michelsen, Walter J.—St. Luke's Hospital, New York City
Middleton, Augustus L.—Presbyterian Hospital, New York City
Miller, Orlando P.—Roosevelt Hospital, New York City

Moscarella, Alfred A.—St. Luke's Hospital, New York City
Mott, Peter D.—Massachusetts Memorial Hospital, Boston, Mass.
Mueller, Mark N.—University of Chicago Clinics, Chicago, Ill.
Muiznieks, Ansis—Los Angeles County Hospital, Los Angeles, Calif.
Munsick, George—St. Luke's Hospital, New York City
Munsie, William J.—New England Center Hospital, Boston, Mass.
Myers, Joseph K.—Syracuse Medical Center, Syracuse, N.Y.
Newman, Matthew—King County Hospital, Seattle, Wash.
Nourok, David S.—University of California Hospital, San Francisco, Calif.
Petersen, Robert A.—Presbyterian Hospital, New York City
Petersen, Veronica S.—Bellevue Hospital, New York City
Phillips, Gene M.—Stanford University Hospital, Palo Alto, Calif.
Pi-Sunyer, F. Xavier—St. Luke's Hospital, New York City
Pines, Joseph—Peter Bent Brigham Hospital, Boston, Mass.
Pittman, Fred E.—The New York Hospital, New York City
Plaut, Thomas F.—Bellevue Hospital, New York City
Prescott, Richmond—Massachusetts General Hospital, Boston, Mass.
Pressman, Peter I.—Bellevue Hospital, New York City
Prothero, Sherman R.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Pugatch, Donald—Massachusetts Memorial Hospital, Boston, Mass.
Raffman, Beverly G.—Morristown Memorial Hospital, Morristown, N.J.
Reiss, Robert M.—St. Luke's Hospital, New York City
Rohde, Richard L.—Los Angeles County Hospital, Los Angeles, Calif.
Roome, Norman S.—St. Clare's Hospital, New York City
Rosen, Samuel M.—Bronx Municipal Hospital, New York City
Rosenberg, Arthur H.—University of Illinois Research and Educational Hospital, Chicago, Ill.
Rosenfield, Allan G.—Beth Israel Hospital, Boston, Mass.
Schieffelin, John W.—Roosevelt Hospital, New York City
Schwartz, Arnold—University of California Hospital, Los Angeles, Calif.
Shaw, William V.—Presbyterian Hospital, New York City
Sigler, Paul B.—Presbyterian Hospital, New York City
Simon, Bennett—Montefiore Hospital, New York City
Slack, Warner V.—University Hospitals, Madison, Wis.
Smith, Martin J.—Methodist Hospital, Brooklyn, N.Y.
Spitzer, Kenneth H.—Syracuse Medical Center, Syracuse, N.Y.
Storm, George—Mary Hitchcock Memorial Hospital, Hanover, N.H.
Strauch, Berish—Bellevue Hospital, New York City
Strehan, Theodore L.—Montefiore Hospital, New York City
Tegtmeyer, Gamber F.—University Hospitals, Madison, Wis.
Tikoff, Gerasim—University of Chicago Clinics, Chicago, Ill.
Vadeika, Edward—Methodist Hospital, Brooklyn, N.Y.
Wallace, Seymour—Methodist Hospital, Brooklyn, N.Y.
Weech, Alexander A., Jr.—Methodist Hospital, Brooklyn, N.Y.
Weems, Charles E.—Pennsylvania Hospital, Philadelphia, Pa.
Wender, Paul H.—Barnes Hospital, St. Louis, Mo.
Wheeler, Leonard III—Strong Memorial–Rochester Municipal Hospitals, Rochester, N.Y.
Widrow, David R.—Bronx Municipal Hospital Center, New York City
Wilson, George C., Jr.—Stanford University Hospitals, San Francisco, Calif.
Wolf, Sheldon M.—Bellevue Hospital, New York City
Wosnitzer, Maclyn E.—St. Luke's Hospital, New York City

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1960

Alling, Stearly — Montclair, N.J.
A.B., Wellesley, 1956
Anderson, Richard Arnold — Greenwich, Conn.
A.B., Wesleyan, 1956
Anderson, Richard Dawson — Birmingham, Ala.
A.B., Birmingham Southern, 1956
Appel, Stanley H. — Andover, Mass.
A.B., Harvard, 1954
Beller, Barry Maurice — Mahopac, N.Y.
A.B., Columbia, 1956
Blumenthal, Jesse Arthur — Brooklyn, N.Y.
A.B., Columbia, 1956
Bradley, Edward B. — Utica, N.Y.
A.B., Hamilton, 1956
Braun, Peter — Bridgeport, Conn.
B.S., Yale, 1956
Brownlee, William Harry — Charlotte, N.C.
B.S., Davidson, 1956
Callan, Desmond — New York City
A.B., Columbia, 1950
Canellos, George Peter — East Boston, Mass.
A.B., Harvard, 1956
Chase, Richard A. — South Orange, N.J.
A.B., University of Chicago, 1952
Choy, Martin Frank — Jersey City, N.J.
A.B., Yale, 1956
Clark, Julian Joseph — Brooklyn, N.Y.
A.B., Princeton, 1956
Clark, Rita W. — Brooklyn, N.Y.
B.S., Brooklyn, 1956
Clutz, Richard Baker — St. Davids, Pa.
A.B., Princeton, 1956
Coats, Thomas F. — Lexington, Ky.
A.B., Kentucky, 1952
Coffey, Edward Lyman — Westfield, N.J.
A.B., Princeton, 1956
Cohen, Michael Irwin — New York City
A.B., Columbia, 1956
Cohen, Peter Jacob — New York City
A.B., Princeton, 1956
Cummings, Dean Winfred — Plains, Mont.
A.B., Montana State, 1952
Dawes, Henry F. — Englewood, N.J.
A.B., Princeton, 1956
Denner, Joseph Leroy — Alva, Okla.
A.B., Westminster, 1953
Dennisk, Leonard Gainsworth, Jr. — Hamburg, N.Y.
A.B., Colgate, 1956
DeSimone, Arthur Robert — Glendale, N.Y.
B.S., Manhattan, 1956
Doherty, Richard Arthur — Newport, Me.
A.B., Bowdoin, 1954
Dolganos, Ellen Marie — Jersey City, N.J.
A.B., Vassar, 1956
Downey, James Lewis — Darien, Conn.
A.B., Yale, 1956
Doyle, George B. — Worcester, Mass.
A.B., Harvard, 1956
Dunne, Peter B. — Washington, D.C.
A.B., Harvard, 1955
Eddison, Grace Gene — Riverdale, N.Y.
A.B., Wellesley, 1949
Ehrmann, Norbert August — Englewood, N.J.
A.B., Princeton, 1953
Emde, Robert Newcomb — Katonah, N.Y.
A.B., Dartmouth, 1956
Fabrega, Horacio, Jr. — Miami, Fla.
A.B., Pennsylvania, 1956
Forker, George Norman — Pittsburgh, Pa.
A.B., Yale, 1956
Forwand, Stanley Arthur — New York City
A.B., Union, 1956
Ginsberg, Joel — Brooklyn, N.Y.
A.B., Princeton, 1956
Glezen, John Marcena — Cortland, N.Y.
A.B., Hamilton, 1956
Glinsmann, Walter Henry — Mamaroneck, N.Y.
A.B., Columbia, 1956
Goldfinger, Stephen Edward — New York City
A.B., Princeton, 1956
Hanson, Kenneth Charles — Watertown, S.D.
A.B., St. Olaf, 1956
Heimarck, Gregory James — New York City
A.B., St. Olaf, 1956
Heller, Stanley Samuel — New York City
A.B., Yale, 1956
Hersh, Evan Manuel — New York City
B.S., College of the City of New York, 1956
Hicks, William Ray — New York City
A.B., Princeton, 1956
Hollander, Joshua — New York City
A.B., Columbia, 1956
Holsclaw, Douglas, Jr. — Tucson, Ariz.
A.B., Arizona, 1956
Hoppin, Frederic Gallatin, Jr. — New York City
A.B., Harvard, 1956
Howes, Edward Lee, Jr. — Dobbs Ferry, N.Y.
A.B., Yale, 1956
Janin, Matthew Joel — New York City
A.B., Columbia, 1956
Johnson, John Richard — Quaker City, Ohio
B.S., Ohio, 1956
Kallen, Roland Gilbert — Newark, N.J.
A.B., Amherst, 1956
Kane, Kendal Kent — Dover, Ohio
A.B., Princeton, 1955
Kao, Priscilla M. N. — Singapore, Malaya
A.B., Pennsylvania, 1956
Kaufman, Roger Stuart — Monroe, N.Y.
A.B., Princeton, 1956
Keller, Howard Irving — Plainfield, N.J.
A.B., Princeton, 1956
King, Donald Latham — Pasadena, Calif.
A.B., Stanford, 1956
Klein, Herbert Alan — Upper Montclair, N.J.
A.B., Columbia, 1956
Korhammer, Allan Francis — Mt. Vernon, N.Y.
A.B., Princeton, 1956
Kroll, Arnold Joseph — Miami Beach, Fla.
A.B., Princeton, 1956
Kronfeld, Peter Paul — Wilmette, Ill.
A.B., Wesleyan, 1956
Leach, Charles Nelson, Jr. — Newfane, Vt.
A.B., Amherst, 1956
Lehwalder, Laurus Waldemar — Butte, Mont.
B.S., Oregon State, 1952
Lennon, Arthur Joseph — New York City
A.B., Fordham, 1956
MacLean, Neil Murdo — Bryan, Conn.
A.B., Hamilton, 1956
MacLowry, James Don — New York City
A.B., Yale, 1956

Marubbio, Adolph T., Jr. Brooklyn, N.Y.
A.B., New York University, 1956
Marx, Herbert J. St. Albans, N.Y.
B.E.E., Rensselaer Polytechnic, 1954
Mayers, Lester Barry New York City
A.B., Wisconsin, 1956
Milligan, Richard Scott Cincinnati, Ohio
A.B., Kenyon, 1956
Mogil, Sandra Louise New York City
A.B., Barnard, 1956
Moroff, Saul Victor New York City
A.B., Yale, 1956
Nadel, Alfred Joel New York City
A.B., Union, 1956
Nelson, Michael Kenneth Brooklyn, N.Y.
A.B., Columbia, 1956
Neuhardt, Robert George New York City
B.S., Yale, 1956
Nicklaus, Ted Maurice Amarillo, Tex.
A.B., Yale, 1956
Nold, Mary Beatrice Oakland, Calif.
A.B., Northwestern, 1946
M.A., Mills, 1948
B.L.S., California, 1951
Nova, Harvey Ronald New York City
A.B., Brooklyn, 1956
Oppenheim, Joost Joe New York City
A.B., Columbia, 1956
Palombo, Stanley Robert Brooklyn, N.Y.
A.B., Harvard, 1955
Penn, Audrey Shields New York City
A.B., Swarthmore, 1956
Phelps, Paulding Philadelphia, Pa.
A.B., Haverford, 1955
Picoff, Ronald Chester Brooklyn, N.Y.
A.B., Columbia, 1956
Pincus, Jonathan Henry Brooklyn, N.Y.
A.B., Amherst, 1956
Poliner, George Franklin Brookline, Mass.
A.B., Wesleyan, 1956
Raine, Alan Charles Kew Gardens, N.Y.
A.B., Queens, 1953
Ravel, Richard Clearwater, Fla.
A.B., Harvard, 1953
Reilly, Herbert Faulkner, Jr. Forest Hills, N.Y.
A.B., Princeton, 1956
Richards, Ernest Carter Rye, N.Y.
A.B., Yale, 1956
Riggins, Robert C. K. New York City
A.B., Yale, 1956
Robbins, Jay Howard Woodmere, N.Y.
A.B., Harvard, 1956
Roman, Theodore Presley Rosholt, S.D.
A.B., Dakota Wesleyan, 1956
Rosen, Ora M. New York City
A.B., Barnard, 1956
Rowland, Christopher V., Jr. Reedsville, Pa.
A.B., Princeton, 1956
Rucker, Charles Monroe Flagstaff, Ariz.
B.S., Arizona, 1956
Sachs, John Richard Brooklyn, N.Y.
B.S., Manhattan, 1956
Salot, William Harry Mt. Clemens, Mich.
A.B., Amherst, 1956
Scham, Stewart Marvin Yonkers, N.Y.
A.B., New York University, 1956
Schuh, Frederic DeGraw Teaneck, N.J.
B.S., Trinity, 1956
Schwartz, Elias Brooklyn, N.Y.
A.B., Columbia, 1956
Seto, Dexter, S. Y. Honolulu, Hawaii
A.B., Kenyon, 1956
Smith, Lloyd DuBois, Jr. Oakdale, Calif.
A.B., California, 1956
Smith, Richard Stanton Laconia, N.H.
A.B., Wesleyan, 1956
Smith, Thomas Graves, Jr. LaGrange, Ga.
B.A., Oxford, 1956
Solomon, Sheila Horn New York City
B.S., McGill, 1953
Sorger, Martin Lawrence Newark, N.J.
A.B., Hamilton, 1956
Stanley, George Richard Lawton, Okla.
B.S., Oklahoma, 1956
Stassa, George New York City
A.B., Columbia, 1956
Suarez, John Michael New York City
A.B., Columbia, 1956
Swinton, Neil Williams, Jr. Waban, Mass.
A.B., Haverford, 1956
Taylor, William R. Leonminster, Mass.
B.S., Worcester Polytechnic Institute, 1955
Temple, William Edward Ridgewood, N.J.
A.B., Columbia, 1956
~~Touloukian, Robert James~~ New York City
A.B., Columbia, 1956
~~Troupin, Allan Stuart~~ New York City
A.B., Columbia, 1956
~~Troupin, Rosalind Hilsen~~ New York City
B.S., College of the City of New York, 1956
Trunnel, Thomas Lowry Kirksville, Mo.
Urschel, William Powell Bowling Green, Ohio
A.B., Princeton, 1956
~~Weiss, Bernard~~ Forest Hills, N.Y.
A.B., Columbia, 1956
~~Wolfe, David Emery~~ Seattle, Wash.
A.B., Columbia, 1956

Fourth Year: Class of June, 1960 119

THIRD-YEAR CLASS—CLASS OF JUNE, 1961

Allen, Charles DeBertram Sanford, Me.
A.B., Harvard, 1957
Alling, Frederic Augustus Montclair, N.J.
A.B., Princeton, 1952
Argall, Temby Richie Lakesville, Conn.
A.B., Yale, 1957
Banks, Peter Alan Chestnut Hill, Mass.
A.B., Harvard, 1957
Bard, David Sayre New York City
B.S., Stetson, 1957
Bates, Griffin Miller, Jr. Jamaica, N.Y.
A.B., Hamilton, 1957
Becker, Heber Weidler, Jr. Lancaster, Pa.
B.S., Franklin and Marshall, 1957
Beckman, Daryl Elizabeth Bryn Mawr, Pa.
A.B., Mount Holyoke, 1957
Benjamin, Burton Irving Forest Hills, N.Y.
A.B., Hamilton, 1957
Billig, Stuart Lawrence New York City
A.B., Hamilton, 1957
Bowe, Edward Thomas New York City
B.S., Columbia, 1957
Bowers, Henry Myers, Jr. Chatham, N.J.
A.B., Princeton, 1957
Brill, Charles Beauford New York City
A.B., Lafayette, 1957
Brunjes, Carl Frederick Hartsdale, N.Y.
A.B., Yale, 1957
Bullwinkel, George Albert, Jr. Rye, N.Y.
A.B., Yale, 1957

Campbell, Allen Barry — Cleveland Heights, Ohio
A.B., Princeton, 1957
Christensen, Edward Warren — New York City
A.B., Columbia, 1957
Clark, Hugh — Oldwick, N.J.
A.B., Williams, 1957
Clevenger, Joseph Henry, Jr. — Muncie, Ind.
A.B., Princeton, 1957
Cohen, Martin Noel — Passaic, N.J.
A.B., Harvard, 1957
Cohen, Stanley — Brooklyn, N.Y.
A.B., Columbia, 1957
Cohn, Lawrence Jerome — Brooklyn, N.Y.
B.S., Franklin and Marshall, 1957
Corning, Howard Burt — Syosset, N.Y.
A.B., Harvard, 1957
Cross, Carroll E. — Seattle, Wash.
A.B., Pomona, 1957
Curran, John Patrick — St. Paul, Minn.
A.B., Saint Mary's, 1957
Danes, Betty Shannon — Brightwaters, N.Y.
A.B., Mount Holyoke, 1948
M.A., Texas, 1949
Ph.D., Iowa, 1952
Dans, Peter Emanuel — New York City
B.S.,Manhattan, 1957
Dantzler, William Hoyt — Milwaukee, Wis.
A.B., Princeton, 1957
Decker, Norman — New York City
A.B., Columbia, 1957
Dennis, Allen Johnson, Jr. — Macon, Ga.
A.B., Rice Institute, 1957
Deuel, Thomas Franklin — Short Hills, N.J.
A.B., Princeton, 1957
DeWitt, Robert James — Oconto, Wis.
A.B., Carleton, 1957
Duberstein, Joel Lawrence — Bayonne, N.J.
A.B., Princeton, 1957
Duncan, William Y., III — New Haven, Conn.
B.S., Yale, 1953
Durante, Lawrence John — Long Island City, N.Y.
A.B., Princeton, 1957
Dwyer, Edward Michael — Plymouth, Pa.
A.B., Columbia, 1957
Emery, Edward Stanley, III — Milton, Mass.
A.B., Princeton, 1957
Finkel, Jerry Bernard — New York City
A.B., Columbia, 1957
Flemming, William Hare — Columbus, Ohio
A.B., Yale, 1957
Gale, James Lyman — Concord, Mass.
A.B., Harvard, 1957
Gilman, Richard Alan — Swampscott, Mass.
A.B., Williams, 1957
Glass, Joseph Lewis — Lynbrook, N.Y.
A.B., Princeton, 1957
Golden, Gerald Samuel — Newark, N.J.
A.B., Princeton, 1957
Graham, Paul A. — Wheeling, W. Va.
A.B., Princeton, 1956
Gregory, Raymond Frederick — Galveston, Tex.
A.B., Princeton, 1957
Grossbard, Lionel — Brooklyn, N.Y.
A.B., Columbia, 1957
Grossman, Frederick Maurice — El Paso, Tex
A.B., Harvard, 1957
Guggenheim, Frederick Gibson — Washington, D.C.
A.B., Yale, 1957
Gwyn, Paul Perkins, Jr. — West Jefferson, N.C.
A.B., Princeton, 1957
Harvey, Seth — New York City
A.B., Princeton, 1955
Hendricks, Ed Jerald — Dallas, Tex.
A.B., Rice Institute, 1957
Hope, Peter Blanchard — New York City
A.B., Harvard, 1957
Janoski, Alfonso Hubert — Bloomfield, N.J.
A.B., Seton Hall, 1957
Kalinske, Robert Wayne — Tucson, Ariz.
A.B., Yale, 1957
Katz, Edward Lyle — Hartford, Conn.
A.B., Princeton, 1957
Katz, Leonard Allen — Buffalo, N.Y.
A.B., Yale, 1957
Kim, Dong Su — Taejon, Korea
A.B., Bowdoin, 1957
Knebel, Ruthmary Spear — Canaan, N.Y.
A.B., Mount Holyoke, 1956
Kohler, Peter Francis — Milwaukee, Wis.
A.B., Princeton, 1957
Kohn, Leonard David — Easton, Pa.
A.B., Columbia, 1957
Kovel, Joel Stephen — Roosevelt, N.Y.
B.S., Yale, 1957
Labourdette, Irene Lois — Lincoln Park, N.J.
A.B., Oberlin, 1952
M.A., Iowa, 1954
Lemlich, Arthur — New York City
B.S., Columbia, 1957
Levitzky, Munro Joseph — Brooklyn, N.Y.
A.B., Columbia, 1957
Lightdale, Mayer Raynes — Jersey City, N.J.
A.B., Princeton, 1957
Luftschein, Stanley — Flushing, N.Y.
A.B., Columbia, 1957
Luikart, William Ernst — Woodhaven, N.Y.
A.B., Columbia, 1957
Mack, Thomas McCulloch — Minden, Nev.
A.B., Carleton, 1957
Maenza, Ronald Morton — Jackson Heights, N.Y.
A.B., Columbia, 1957
Marcuse, Donald James — New York City
A.B., Harvard, 1957
Marglin, Arnold Gershaw — Hollywood, Calif.
A.B., Harvard, 1957
Melges, Frederick Towne — Battle Creek, Mich.
A.B., Princeton, 1957
Meyer, James Hugh — Milwaukee, Wis.
A.B., Princeton, 1957
Meyerson, Arthur Theodore — New York City
A.B., Columbia, 1957
Millheiser, Peter John — New York City
A.B., Columbia, 1957
Morgan, Walter Edward, III — Glen Ridge, N.J.
A.B., Wesleyan, 1957
Mulcare, Robert John — Garden City, N.Y.
A.B., Princeton, 1957
Nachamie, Benjamin Abraham — Brooklyn, N.Y.
A.B., Columbia, 1957
Neer, Robert Marshall, Jr. — Urbana, Ohio
A.B., Harvard, 1957
Nesti, Richard P. — West New York, N.J.
A.B., Columbia, 1954
O'Connell, Francis Daniel — Uxbridge, Mass.
A.B., Harvard, 1957
Pflueger, Otto Henry, Jr. — San Francisco, Calif.
A.B., Reed, 1957
Philip, James Louis — Worcester, Mass.
B.S., Michigan, 1957
Powell, William John, Jr. — Duxbury, Mass.
A.B., Harvard, 1957

Pressman, David L. — Chelsea, Mass.
A.B., Harvard, 1957
Redman, Helen Cornelia — Great Neck, N.Y.
A.B., Rochester, 1957
Reich, Paul Richard — Hackensack, N.J.
A.B., Princeton, 1957
Reichel, William — New York City
A.B., Columbia, 1957
Robbins, Michael Daniel, Jr. — West Englewood, N.J.
A.B., Amherst, 1955
Robinson, James Alan — Mount Vernon, N.Y.
A.B., Wesleyan, 1957
Robinson, John Lee — Omaha, Neb.
A.B., Yale, 1957
Rosen, John Friesner — New York City
A.B., Harvard, 1957
Ryan, John Francis — Jamaica Plain, Mass.
A.B., Boston College, 1957
Schuh, Sara Daley — New York City
A.B., Vassar, 1957
Schwarzberg, Jane Elizabeth — New York City
A.B., Barnard, 1957
Schwartzman, William Robert — New York City
A.B., Columbia, 1957
Scott, Robert Henderson — Northfield, Minn.
A.B., Carleton, 1957
[2] Sheagren, John Newcomb — Rockford, Ill.
A.B., Carleton, 1957
Sherwood, Louis Maier — Hempstead, N.Y.
A.B., Johns Hopkins, 1957
Skolnick, M. Leon — Forest Hills, N.Y.
A.B., Columbia, 1957
Song, Chull Sung — Seoul, Korea
A.B., Birmingham Southern, 1957
Standfast, Susan Jane — Binghamton, N.Y.
A.B., Wells, 1957
Stevenson, Donald Day — Tenafly, N.J.
A.B., Princeton, 1957
Stouch, William Haydn — York, Pa.
A.B., Princeton, 1957
Strayer, Luther Milton, III — Stratford, Conn.
A.B., Princeton, 1957
Stuart, Philip Frazer — Lakewood, Ohio
A.B., Bowdoin, 1957
Talbott, John Andrew — Eden (Buffalo), N.Y.
A.B., Harvard, 1957
Teran, Irwin Burton — Flushing, N.Y.
A.B., Columbia, 1957
Terry, Stephen — Tucson, Ariz.
A.B., B.S., Arizona, 1957
Thurer, Richard Jerome — Hicksville, N.Y.
A.B., Princeton, 1957
Townsend, Eleanor Meneely — New York City
A.B., Sarah Lawrence, 1957
Troy, Bart Lynch — Melrose, Mass.
A.B., Georgetown, 1957
Tucker, Marjorie Jane — Brooklyn, N.Y.
A.B., Radcliffe, 1957
Uprichard, Eleanore E. — Yonkers, N.Y.
A.B., Rochester, 1958
Wanderer, Alan Anson — Woodside, N.Y.
A.B., Earlham, 1957
Wanger, Stephen Lewis — Albany, N.Y.
A.B., Yale, 1957
Watson, Charles Gray — Carnegie, Pa.
A.B., Princeton, 1957
Weber, Eric Taylor — Clinton, N.Y.
A.B., Oberlin, 1957

[2] Research year 1959–1960.

Weil, Richard, III — New York City
A.B., Princeton, 1957
Whaley, David Anthony — Kenmore, N.Y.
A.B., Rochester, 1957
Wilson, Paul Tyler — New York City
A.B., Columbia, 1954

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SECOND-YEAR CLASS—CLASS OF JUNE, 1962

Ackerman, A. Bernard — Elizabeth, N.J.
A.B., Princeton, 1958
Allen, Thomas E. — Milwaukee, Wis.
A.B., Princeton, 1958
Augur, Newell A., Jr. — St. Louis, Mo.
B.E., Yale, 1958
Baker, Fred L. — Owensboro, Ky.
A.B., Wabash, 1958
Barlow, Peter B. — Englewood, N.J.
A.B., Harvard, 1958
Behrens, Myles M. — Brooklyn, N.Y.
A.B., Yale, 1958
Bell, Donald C. — Wooster, Ohio
A.B., Wooster, 1953
B.D., Chicago, 1956
Bell, H. Glenn, Jr. — San Francisco, Calif.
A.B., Stanford, 1958
Berkes, Kenneth J., Jr. — Baldwin, N.Y.
A.B., Hamilton, 1958
Berman, Howard H. — Silver Spring, Md.
A.B., Duke, 1958
Bezahler, Stephen — Camden, N.J.
A.B., Williams, 1958
Brown, Courtney Warren — Scarsdale, N.Y.
A.B., Williams, 1957
Brown, Richard M. — Princeton, N.J.
A.B., Princeton, 1958
Bruck, Harold M. — Newark, N.J.
A.B., Hamilton, 1958
Brust, John C. M., Jr. — Syracuse, N.Y.
A.B., Harvard, 1958
Buckley, Marcia A. — Wakeman, Ohio
A.B., Mount Holyoke, 1958
Bull, Sherman M. — Riverdale, N.Y.
A.B., Yale, 1958
Burress, Donald A. — Wauwatosa, Wis.
A.B., Ripon, 1955
B.S., M.S., Massachusetts Institute of Technology, 1956
Campbell, James M. — South Bend, Ind.
A.B., Yale, 1958
Casazza, Albert R. — Secaucus, N.J.
A.B., Princeton, 1958
Cassileth, Peter A. — New York City
A.B., Union, 1958
Caton, Donald — Washington, D.C.
B.S., Yale, 1958
Chao, Solan — New York City
A.B., Cornell, 1954
Coates, Edward D. — Glendale, Calif.
A.B., Yale, 1958
Cohen, Donald S. — Port Jervis, N.Y.
A.B., Hamilton, 1958
Cohen, Stanley J. — Brooklyn, N.Y.
A.B., Columbia, 1958
Cohn, Peter F. — Scarsdale, N.Y.
A.B., Columbia, 1958
Coulis, Despine L. — Salem, Mass.
A.B., Smith, 1958
Covey, William G. — New York City
A.B., Columbia, 1958

Dauber, Leonard G. — Brooklyn, N.Y.
A.B., Columbia, 1958
Dubin, Howard V. — New York City
A.B., Columbia, 1958
Duncan, William C., III — Northampton, Mass.
A.B., Princeton, 1958
Flagg, Stephen V. — Englewood, N.J.
B.S., Yale, 1957
Flood, Barbara Joyce — New York City
A.B., Wellesley, 1953
Fogelberg, Earl Victor — Chicago, Ill.
A.B., Princeton, 1958
Fox, Howard A. — Brooklyn, N.Y.
B.S., Union, 1954
Ph.D., Columbia, 1958
Frankel, Herman Morris — Brooklyn, N.Y.
A.B., Columbia, 1958
Franzone, Andrew J. — New York City
A.B., Holy Cross, 1958
Gamble, Anne van N. — New York City
A.B., Mount Holyoke, 1956
Geller, Arthur S. — Laurelton, N.Y.
A.B., Williams, 1958
Gollance, Robert B. — Brooklyn, N.Y.
A.B., Harvard, 1958
Grant, John P., Jr. — New Canaan, Conn.
A.B., Amherst, 1954
Grant, Sandra Elisabeth — Liberty, N.Y.
A.B., Bryn Mawr, 1958
[1] Graves, Mary L. — Philadelphia, Pa.
A.B., Pennsylvania, 1958
Gray, Parke H. — Hartford, Conn.
A.B., Williams, 1958
Gutstein, Robert A. — Brooklyn, N.Y.
A.B., Colgate, 1958
Haft, Jacob I. — Belleville, N.J.
A.B., Harvard, 1958
Hankin, Edwin — Brooklyn, N.Y.
A.B., Columbia, 1958
Herzberg, Robert M. — Pacific Palisades, Calif.
A.B., Reed, 1958
Hirschhorn, Norbert — New York City
A.B., Columbia, 1958
Hurst, Fred S. — Brooklyn, N.Y.
A.B., Princeton, 1958
Immordino, Peter A. — Yonkers, N.Y.
A.B., New York University, 1958
Johnson, Warren D., Jr. — Gurnee, Ill.
B.S., Carroll, 1958
Karliner, Joel S. — Union City, N.J.
A.B., Columbia, 1958
Kelley, John — Southampton, N.Y.
A.B., Brown, 1957
Kilburn, Howard Lee — Wenatchee, Wash.
A.B., University of Washington, 1958
Klein, William J., Jr. — Cincinnati, Ohio
A.B., Cincinnati, 1958
Kovach, John S. — Shaker Heights, Ohio
A.B., Princeton, 1958
Kraut, Joel A. — Jersey City, N.J.
A.B., Princeton, 1958
Kreek, Mary Jeanne — Washington, D.C.
A.B., Wellesley, 1958
Lerner, Irving J. — Cincinnati, Ohio
A.B., Yale, 1958
[1] Lettiere, Anthony C. — Hartford, Conn.
B.S., Holy Cross, 1958

[1] Withdrew.

Levine, Jonathan — Brooklyn, N.Y.
A.B., Columbia, 1958
Lovejoy, William P. — Oldwick, N.J.
A.B., Yale, 1956
McCarroll, Henry R. — St. Louis, Mo.
A.B., Princeton, 1958
McGray, Richard S. — Columbus, Ohio
A.B., Wesleyan, 1954
B.D., Yale, 1957
Margolies, Lawrence Noel — New York City
A.B., Columbia, 1958
Margolies, Michael N. — Flushing, N.Y.
A.B., Harvard, 1958
Marks, Clement E., Jr. — Bethlehem, Pa.
A.B., Dartmouth, 1958
Miller, Robert L. — Elmira, N.Y.
A.B., Hamilton, 1958
Moloy, Peter Jay — New York City
A.B., Harvard, 1958
Mosher, Paul W. — Albany, N.Y.
A.B., Harvard, 1958
Murphy, Scott — Merion, Pa.
A.B., Yale, 1958
Nadel, Martin S. — Brooklyn, N.Y.
A.B., Hamilton, 1957
Nasr, Khosrow — Tehran, Iran
B.S., Yale, 1958
Nisonson, Ian — New York City
A.B., Columbia, 1958
Oppenheimer, Edward A. — New York City
A.B., Columbia, 1958
Orahood, Richard C. — Marysville, Ohio
A.B., Ohio Wesleyan, 1958
Pagliaro, Salvatore J. — New York City
A.B., Columbia, 1958
Parry, Peter V. — Lynbrook, N.Y.
A.B., Hofstra, 1958
Pascal, Robert R. — New York City
A.B., Columbia, 1958
Patek, David J. — New York City
A.B., Harvard, 1958
Pease, Paul J. — Lewisburg, Ohio
A.B., Miami, 1958
Puchner, Peter J. — Manitowoc, Wis.
A.B., Carleton, 1958
Purcell, Ganson, Jr. — Washington, D.C.
A.B., Williams, 1958
Rappaport, Michael Lee — Glencoe, Ill.
A.B., Harvard, 1958
Reber, Robert E. — Circleville, Ohio
A.B., Ohio, 1958
Reese, Thomas S. — Cleveland, Ohio
A.B., Harvard, 1957
Romas, Nicholas A. — Endicott, N.Y.
A.B., Colgate, 1958
Root, Elihu N. — New York City
B.S., College of the City of New York, 1958
Rosen, Barbara J. — Dedham, Mass.
B.S., Simmons, 1956
M.S., Vassar, 1958
Rygorsky, Jerome E. — Brooklyn, N.Y.
A.B., New York University, 1958
Schiff, Eugene R. — Cincinnati, Ohio
A.B., Michigan, 1958
Schuster, Timothy S. — Hewlett, N.Y.
A.B., Harvard, 1958
Schwartz, Gabriel H. — Mount Vernon, N.Y.
A.B., Princeton, 1958
Seidenberg, Boyd H. — Bronxville, N.Y.
A.B., Columbia, 1958

Sherman, Spencer E. Englewood, N.J.
A.B., Princeton, 1958
Silver, Stephen E. Brooklyn, N.Y.
A.B., Princeton, 1958
Smelzer, Timothy H. Pittsburgh, Pa.
A.B., Hamilton, 1958
Solomon, Henry A. Brooklyn, N.Y.
A.B., Columbia, 1958
Steele, Thomas H. New Castle, Pa.
B.S., Haverford, 1958
Steiner, Alton L. Albany, N.Y.
A.B., Harvard, 1958
Stewart, Franz H., Jr. Miami, Fla.
A.B., Emory, 1958
Talbot, Bernard New York City
A.B., Columbia, 1958
Thompson, Robert D. Akron, Ohio
A.B., Princeton, 1958
Ulin, Richard I. New York City
B.S., Franklin and Marshall, 1958
Valuska, James W. Mingo Junction, Ohio
A.B., Princeton, 1958
Vogel, James M. New York City
A.B., Wesleyan, 1958; M.A., 1959
Waldbaum, Robert S. Brooklyn, N.Y.
A.B., Columbia, 1958
Walker, Barry R. Reading, Pa.
A.B., Yale, 1958
Waterson, K. William, Jr. Tenafly, N.J.
B.S., Washington and Lee, 1958
Weight, Forrest F., Jr. Middletown, N.Y.
A.B., Princeton, 1958
Weinstein, Joel David Memphis, Tenn.
A.B., Princeton, 1958
Weksler, Marc E. Brooklyn, N.Y.
A.B., Swarthmore, 1958
White, John J., Jr. Glen Rock, N.J.
A.B., Yale, 1958
Williams, Thomas A. Racine, Wis.
A.B., Harvard, 1958
Winslow, Robert B. Ridgefield, Conn.
A.B., Princeton, 1958
Wolf, Peter M. Metairie, La.
A.B., Yale, 1957
Zeft, Howard J. Philadelphia, Pa.
A.B., Princeton, 1958

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STUDENTS ACCEPTED FOR THE CLASS OF 1963

Anderson, M. Lanier — Louisville, Ky.
A.B., Smith, 1959
Arend, William P. — Holland Patent, N.Y.
A.B., Williams, 1959
Aronson, William J. — Newton Center, Mass.
A.B., Harvard, 1951
M.S., Massachusetts Institute of Technology, 1953
Assali, Albert V. — Port-au-Prince, Haiti
A.B., Harvard, 1959
Bachner, Paul — Miami, Fla.
A.B., College of the City of New York, 1959
Banner, Richard L. — Brooklyn, N.Y.
A.B., Amherst, 1959
Barlow, Sally E. — Plainfield, N.J.
A.B., Wellesley, 1959
Barth, Rolf F. — New York City
A.B., Cornell, 1959
Belz, Carl Irvin — Haddonfield, N.J.
A.B., Princeton, 1959
Benjamin, Thomas L. — Providence, R.I.
A.B., Amherst, 1959
Berk, Paul David — Brooklyn, N.Y.
A.B., Swarthmore, 1959
Bissell, M. LeClair — Signal Mountain, Tenn.
A.B., Colorado, 1950
M.S., Columbia, 1952
Blacklow, Neil R. — Belmont, Mass.
A.B., Harvard, 1959
Bolker, Ethan D. — Brooklyn, N.Y.
A.B., Harvard, 1959
Briska, Philip — Washington, D.C.
A.B., Harvard, 1952
Brown, Arthur L. — Darien, Conn.
A.B., Princeton, 1959
Brown, Robert S. — New York City
A.B., Harvard, 1959
Bruce, David H. — Wilmington, Del.
A.B., Harvard, 1959
Brudner, Harvey J. — New York City
B.S., New York University, 1952
M.S., New York University, 1954
Burd, Robert M. — New York City
A.B., Columbia, 1957
Cannon, Wayne D., Jr. — Montevideo, Uruguay
B.S., Yale, 1959
Chun, Clyde W. — Marblehead, Mass.
A.B., Harvard, 1959
Churchill, Winthrop H. — Cambridge, Mass.
A.B., Harvard, 1959
Cohen, Roger David — Newton Center, Mass.
A.B., Harvard, 1959
Coli, Robert Dante — Warwick, R.I.
A.B., Tufts, 1959
Deakins, Susan M. — Signal Mountain, Tenn.
A.B., Smith, 1958
De Francisco Zea, C. — Mexico, Mexico
B.S., Chicago, 1959
Dickey, Richard A. — Indianapolis, Ind.
A.B., Kenyon, 1959
Dickinson, Louis E. — McCook, Neb.
A.B., Harvard, 1959
Dushman, Miriam B. — Bronx, N.Y.
A.B., Barnard, 1959
Ehrlich, Michael G. — New York City
A.B., Dartmouth, 1959
Essandoh, Samuel O. — Apam, Ghana
A.B., Lincoln, 1958
Feig, Stephen A. — New York City
A.B., Princeton, 1958
Feldman, Martin D. — Mahopac, N.Y.
A.B., Yale, 1959
Ferrari, Dudley A. — Shelburne, Mass.
A.B., Columbia, 1959
Fischer, Edwin G. — Darien, Conn.
A.B., Harvard, 1959
Fisher, Susan M. — Chicago, Ill.
B.S., Chicago
Ford, Charles V. — Porterville, Calif.
A.B., California at Los Angeles, 1959
Fordham, Kenneth — Dundee, Ill.
A.B., Berea, 1959
Geller, Martin P. — Brooklyn, N.Y.
A.B., Columbia, 1959
Golwyn, Daniel H. — Philadelphia, Pa.
A.B., Kenyon, 1959
Hakanson, Carl M. — Martinsville, Va.
A.B., Hamilton, 1959
Heissenbuttal, R. — Greensville, Pa.
A.B., Thiel, 1959
Hoffman, Joel S. — Long Beach, N.Y.
A.B., Harvard, 1959
Horwitz, Stuart S. — New Haven, Conn.
A.B., Yale, 1959
Howie, Dennis, P. — Brooklyn, N.Y.
A.B., Hamilton, 1959
Jordan, George W. — Denver, Colo.
B.S., Denver, 1959
Kahn, Mark E. — Brooklyn, N.Y.
A.B., Columbia, 1959
Kamins, Lloyd — Milwaukee, Wis.
B.S., California Institute of Technology, 1959
Kauderer, John G. — New York City
A.B., Columbia, 1959
Kem, David C. — Richmond, Ind.
A.B., Earlham, 1959
Krakoff, Lawrence — Columbus, Ohio
A.B., Yale, 1959
Kreiter, Richard — Davenport, Iowa
A.B., Grinnell, 1959
Krick, Warren J. — Washington, D.C.
A.B., George Washington, 1959
Larsen, Philip R. — Cincinnati, Ohio
A.B., Princeton, 1959
Lessneski, Albert — Elizabeth, N.J.
A.B., Princeton, 1958
Lewis, Myron — Memphis, Tenn.
A.B., Dartmouth, 1959
Lindy, Jacob D. — Philadelphia, Pa.
A.B., Yale, 1959
Long, Thomas V., II — Thomasville, N.C.
A.B., North Carolina, 1959
Mackler, Gerald — West Hartford, Conn.
A.B., Harvard, 1959
McSherry, Elisabeth — Milton, Mass.
A.B., Radcliffe, 1960
Maletzky, Avron J. — Schenectady, N.Y.
A.B., Princeton, 1959
Manzler, Alan D. — Cincinnati, Ohio
A.B., Princeton, 1959

Mauerman, George S. — Monroe, Wis.
A.B., Vanderbilt, 1959
Morgan, Daniel D. — Hamden, Conn.
A.B., Yale, 1959
Muehlbauer, Peter F. — Brooklyn, N.Y.
A.B., Columbia, 1959
Muhm, Harvard Yale — St. Charles, Mo.
A.B., Yale, 1959
Murphy, John T. — Chappaqua, N.Y.
Musher, Daniel M. — New York City
A.B., Harvard, 1959
Naiman, Peter Todd — Brooklyn, N.Y.
A.B., Williams, 1959
Neer, Eva Julia — New York City
A.B., Barnard, 1959
Nelson, Bruce David — Portland, Me.
A.B., Bowdoin, 1959
Nevel, William G. — Walden, N.Y.
A.B., Columbia, 1959
Newberg, Marc — Jamaica, N.Y.
A.B., Williams, 1959
Noble, John, III — Beirut, Lebanon
A.B., Harvard, 1959
Ortiz, Carmen I. — Santurce, Puerto Rico
A.B., Wellesley, 1959
Page, Robert B. — New York City
A.B., Amherst, 1959
Paris, George L. — Pittsburgh, Pa.
B.S., Carnegie Institute, 1959
Parker, James D. — Glen Ridge, N.J.
A.B., Cornell, 1959
Perlman, Richard D. — Brooklyn, N.Y.
A.B., Princeton, 1959
Pleasure, David E. — Middletown, N.Y.
A.B., Yale, 1959
Pohlman, Mark H. — Columbus, Ohio
A.B., Princeton, 1959
Poppa, Geraldine — Brooklyn, N.Y.
A.B., Vassar, 1959
Rein, Joel Mark — Riverdale, N.Y.
A.B., Columbia, 1959
Reynolds, James C. — Santa Monica, Calif.
A.B., Harvard, 1959
Rittenberg, Stephen — Englewood, N.J.
A.B., Columbia, 1957
Rodnan, Jeanette C. — New York City
A.B., Barnard, 1959
Rosenbaum, Michael — Larchmont, N.Y.
A.B., Yale, 1959
Rosenblatt, Martin — Montclair, N.J.
A.B., Princeton, 1958
Rudders, Richard A. — Brooklyn, N.Y.
A.B., Princeton, 1959
Ryder, Richard A. — Boonville, N.Y.
B.S., Rochester, 1956
Sachs, Frederick — Brooklyn, N.Y.
A.B., Princeton, 1959
Saks, Joel W. — Springfield, Mass.
A.B., Wesleyan, 1959
Schaefer, Robert — Dobbs Ferry, N.Y.
A.B., Yale, 1959
Schecter, Alan N. — Brooklyn, N.Y.
A.B., Cornell, 1959
Scheiner, David L. — Margate, N.J.
A.B., Princeton, 1959
Scherzer, Alfred — New Haven, Conn.
A.B., Columbia, 1949
M.S., 1950; Ph.D., 1959
Schneider, William — Mount Vernon, N.Y.
B.S., Tufts, 1959
Schonberg, Stephen — Hempstead, N.Y.
A.B., Princeton, 1959
Schwartz, David — University Heights, Ohio
A.B., Harvard, 1959
Serxner, Jonathan — Brooklyn, N.Y.
A.B., Columbia, 1959
Shupack, Jerome — Brooklyn, N.Y.
A.B., Columbia, 1959
Silbermann, George — New York City
A.B., Oberlin, 1959
Silver, Lawrence, — Cedarhurst, N.Y.
A.B., Yale, 1959
Simmonds, John — Arlington, Va.
A.B., Yale, 1959
Smith, Charles M. — Chillicothe, Ohio
A.B., Princeton, 1959
Snyder, Bernard, — Harrisburg, Pa.
A.B., Franklin and Marshall, 1959
Steinfeld, Leonard — Bronx, N.Y.
A.B., Princeton, 1959
Steinman, Charles — Brooklyn, N.Y.
A.B., Princeton, 1959
Stevenson, Charles — Grosse Ile, Mich.
A.B., Princeton, 1959
Taylor, Marc J. — Mount Vernon, N.Y.
A.B., Amherst, 1958
Tiley, Frederick — Lehighton, Pa.
A.B., Princeton, 1959
Tull, Dade L. W. — Clemson, S.C.
A.B., Vassar, 1955; M.A., 1957
Wainstein, Eli — Forty Fort, Pa.
A.B., Pennsylvania, 1959
Weksler, Babette — Teaneck, N.J.
A.B., Swarthmore, 1958
Wider, Jerry A. — Bay Shore, N.Y.
A.B., Princeton, 1959
Wolfinger, Howard — Greencastle, Pa.
A.B., Haverford, 1959
Wood, Dean Scott — Watsonville, Calif.
A.B., Harvard, 1959
Zener, Julian C. — Durham, N.C.
A.B., Harvard, 1959
Zweiback, Eugene — Omaha, Neb.
A.B., Princeton, 1959

CONDENSED ACADEMIC CALENDAR

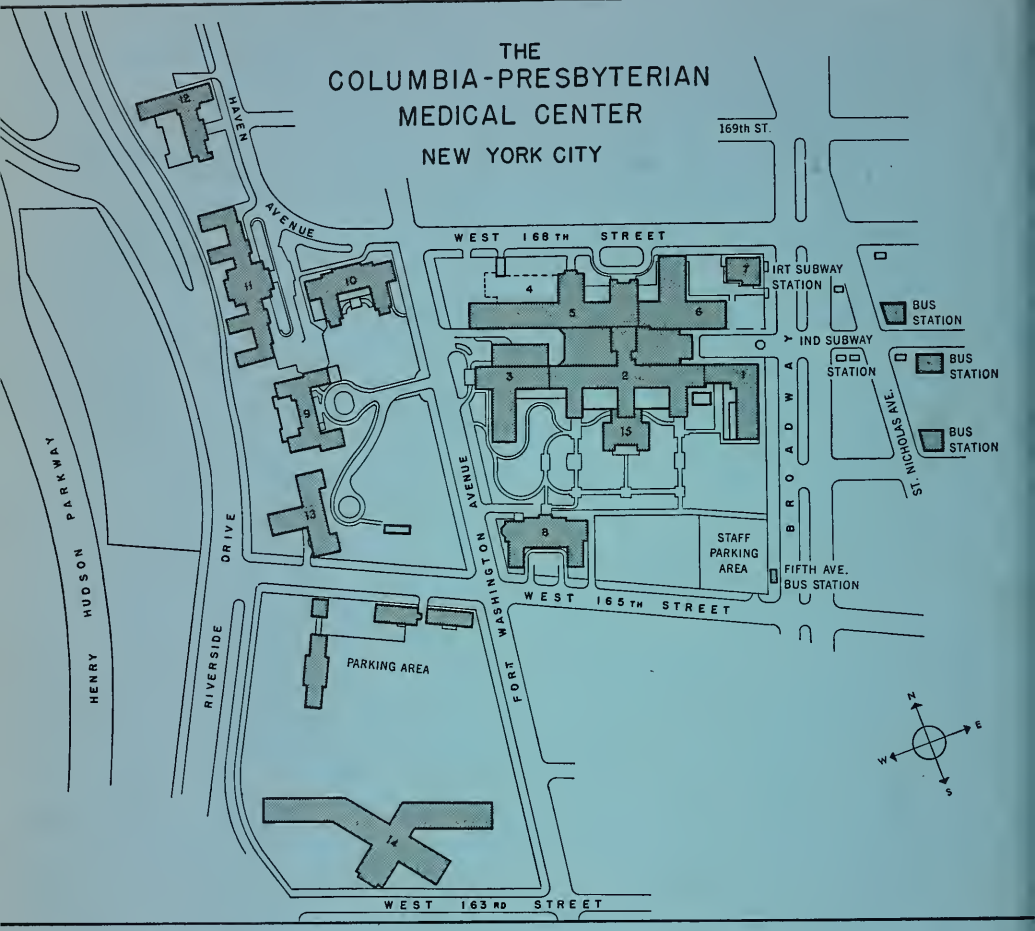
The complete Academic Calendar for the year 1959–1960 may be obtained from the Secretary of the University.

1959

May	21	Thursday, through May 22, Friday. Registration (including payment of University fee) for the Third- and Fourth-Year Classes.
June	**1**	**Monday. New academic year begins for the Third- and Fourth-Year Classes.**
August	3	Monday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
September	10	Thursday, through September 12, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
September	**14**	**Monday. Classes begin.**
October	8	Thursday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D., to be awarded in October.
November	3	Tuesday. Election Day. Holiday.
November	26	Thursday. Thanksgiving Day. Holiday.
December	1	Tuesday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
December	**21**	**Monday, through**

1960

January	**2**	**Saturday. Christmas holidays.**
February	1	Monday. Last day for filing application for Cutting and Ellis Fellowships.
February	22	Monday. Washington's Birthday. Holiday.
March	1	Tuesday. Last day for filing application or renewal of application for all degrees and certificates, except doctoral degrees, to be conferred in June. The privilege of later application may be granted on payment of a late fee.
April	1	Friday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
April	**11**	**Monday, through April 16, Saturday. Easter holidays.**
May	23	Monday, through May 27, Friday. Final examinations.
May	30	Monday. Memorial Day. Holiday.
June	**1**	**Wednesday. Conferring of degrees.**



1. BABIES HOSPITAL
2. PRESBYTERIAN HOSPITAL
   N. Y. ORTHOPAEDIC HOSPITAL
   SLOANE HOSPITAL
   SQUIER UROLOGICAL CLINIC
3. HARKNESS PAVILION
4. POWER HOUSE
5. COLLEGE OF PHYSICIANS AND SURGEONS
6. VANDERBILT CLINIC
   SCHOOL OF DENTAL AND ORAL SURGERY
7. N. Y. CITY DEPT. OF HEALTH
   SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE
8. INSTITUTE OF OPHTHALMOLOGY
9. MAXWELL HALL
10. NEUROLOGICAL INSTITUTE
11. N. Y. STATE PSYCHIATRIC INSTITUTE
12. BARD HALL
13. HARKNESS MEMORIAL HALL
14. FRANCIS DELAFIELD HOSPITAL, N.Y.C.
15. PAULINE A. HARTFORD MEMORIAL CHAPEL

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COLUMBIA UNIVERSITY BULLETIN

SERIES SIXTY • NUMBER THIRTY-ONE • JULY 30, 1960

College of Physicians and Surgeons

OF THE FACULTY OF MEDICINE

1960-1961

COLUMBIA-PRESBYTERIAN MEDICAL CENTER

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VIEW OF BARD HALL FROM RIVERSIDE DRIVE

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THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The basic professional nursing program at Columbia prepares qualified young women to practice nursing effectively in hospitals, homes, and in the various types of health agencies. Nursing is interpreted as including health promotion through education, care of the sick and injured, and their restoration to a useful place in society. The program of study includes instruction in the basic sciences and nutrition; theory and supervised experience in the major clinical areas of medical, surgical, maternity, orthopedic, pediatric, psychiatric, and public health nursing. Completion of the program requires three academic years and two summer sessions, and leads to the award of the degree of Bachelor of Science from Columbia University. See the Nursing bulletin for further details.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 196 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 104 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 176-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergradu-

ate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,719 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,376 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 308 patients, including 60 in the Country Home at Far Rockaway.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 111 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 643 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,136 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 461 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 523 beds, including 80 beds for infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In Hospital." It has 190 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and thirty thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than three thousand periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The second and third floors are arranged to accommodate women students.

Rates for accommodations range from $250 to $500 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal, prepaid board plan; the present rate is $385 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The next entering class will register September 8–10, 1960. Application for admission is made for the next incoming class only, and requests for application forms may be addressed to the Dean one year in advance of matriculation. Every application must be accompanied by a check or money order for the amount of the application fee: $10 for students entering in September, 1960; $15 for those entering in 1961 and thereafter. The fee helps to cover the cost of processing the application; it is therefore not returnable nor is it credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any

student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction. Students who may have in mind a combined program leading to the award of both the Ph.D. and M.D. degrees should consult the chairman of the basic science department in which he plans to major and the Associate Dean of the Faculty of Medicine.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is $75 for any period which is not longer than an autumn or spring term. During the summer, between Commencement and registration in September, the fee is $25.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays. The periods set aside for registration in each term are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the comprehensive fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of $6.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

Comprehensive fee

For all students for one academic year, payable in two installments $ 100.00

Tuition fee

For the full course in medicine for one academic year (or equivalent), payable in two installments	$1,350.00

For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year	37.80

Application fees

For admission in September, 1960	10.00
For admission in 1961 and thereafter	15.00
For each special examination	10.00
For renewal of application for a degree (see below)	1.00

Late fees

For late registration	6.00
For late application, or late renewal of application, for a degree	5.00

Rebates

The comprehensive fee, the student health and hospital fee, application fees, special fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, a charge will be made for any unusual amount of breakage.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of $1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are re-

quired to provide themselves with a microscope of satisfactory type. See page 56 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	Average	*Minimum*
Tuition and fees	$1,488	$1,488
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	$3,178	$2,742

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 54–56.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of $10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-sixth year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of the Director of Student Activities and the P&S Club.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the, disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

I. Recommended for advancement
II. Recommended for readmission to the same class
III. Recommended neither for advancement nor readmission
    A. Because of academic failure
    B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 25 and 26, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, and occupational therapy. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the School of Public Health and Administrative Medicine, the School of Nursing, and Courses in Physical and Occupational Therapy outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about $4,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is usually $2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about $3,200.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, M.A., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The usual stipend is about $4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about $1,150, the annual income of the fund.

Ellis. The George W. Ellis Fellowship is awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of the fellowship is about $2,200.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the chairman of the Department of Microbiology. The value of the fellowship is approximately $2,285.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the chairman of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about $2,410, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the diseases of children in this country or abroad. The value of the fellowship is about $1,945,

the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about $3,170, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about $2,780, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about $1,400 per year. It will be awarded next in 1961–1962.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the chairman of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about $3,265, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1908. The Class of 1908 Gift was given on the fiftieth anniversary of the graduation of the class; the use of the income has not yet been determined.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

DeAngelis. The Anthony M. DeAngelis Scholarship Fund, established by Dr. Anthony M. DeAngelis, is available to a student of the fourth-year class.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John–Princeton. The St. John–Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is $200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the

best thesis on puerperal fever. The value of the prize is about $120, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Chairman of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about $60.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about $75, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about $68, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Psychiatry. The Department of Psychiatry Prize for best work in psychopathology by a second-year student is given each year by the Department of Psychiatry. The approximate amount of this award is $50.

Sciarra. The Helen M. Sciarra Prize in neurology is awarded annually to the fourth-year student who has done the best work in the third-year neurology elective. The value of the prize is about $100.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about $495, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about $285, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about $340. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may

be obtained from the offices of the Dean or of the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

The wives of medical students will find many opportunities for employment at the Medical Center, and those who are interested should notify the Dean's Office.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally, it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who have a particular interest and competence in one of the basic science fields. Only members of the staff of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the selected basic science field is required. Additional requirements include passing a comprehensive examination, completion of a significant and original research project, submission of a dissertation, and passing an oral examination. Further information about the degree can be obtained from the departmental chairman or from the Dean's Office.

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the chest service of Bellevue Hospital, the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hos-

pital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange in their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

	First Year	HOURS
Anatomy 101FS	Microscopic anatomy	161
Anatomy 102ST	Systematic human anatomy	272
Anatomy 103FS and *Public Health 201*	Embryology—statistics—genetics	77
Anatomy 106S	The nervous system	140
Biochemistry 101F	Introductory biochemistry	190
Physiology 101TFo	Human physiology	179
Psychiatry 101FST	Introduction to human behavior	30
Pathology		44
	TOTAL	1,089

Second Year

		HOURS
Medicine 101T	Elementary physical diagnosis	99
Medicine 102S	Elementary clinical pathology	88
Medicine 103T	Introduction to medicine	10
Medicine 104T	Introduction to experimental medicine	8
Microbiology 101F	General microbiology	151
Microbiology 105F	Infection, immunity, etc.	52
Neurology 101T	Neurological examination	20
Pathology 101FS	General and special pathology	251
Pathology 102S	Neuropathology	36
Pharmacology 101ST	General and special pharmacology	132
Psychiatry 102S	Psychopathology	20
Public Health 101T	Parasitic diseases	55
Public Health 101F	Epidemiology; public health control	11
Surgery 101S	Introduction to surgery	12
Surgery 102T	Principles of surgery	66
	TOTAL	1,011

Third Year

Dermatology 203–204	34
Medicine 201–202, 203–204, 205–206	447
Neurology 207–208, 209–210	38
Obstetrics and Gynecology 201–202	56
Ophthalmology 201–202, 203–204	42
Orthopedic Surgery 201–202, 203–204	80
Otolaryngology 201–202, 203	40
Pediatrics 201–202, 207–208	208
Psychiatry 203–204	147
Public Health 203–204	76
Radiology 201–202, 206	24
Surgery 201–202, 204–205, 211–212	219
Electives	385
TOTAL	1,796

Fourth Year

Dermatology 205–206	28
Medicine 205–206, 207–208, 209–210, 221–222, 223–224, 225–226	465
Neurology 202	30
Obstetrics and Gynecology 203–204	280
Orthopedic Surgery 205–206	24
Pediatrics 203–204	140
Pharmacology 202	16
Psychiatry 205	15
Public Health 205	16
Radiology 203–204	16
Surgery 209–210, 213–214, 217–218, 219–220	292
Urology 201–202	36
Electives	280
TOTAL	1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*chairman*), F. A. Mettler (*Neurology*), M. R. Murray (*Surgery*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, M. L. Moss, C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professor: E. B. Kaplan

Assistant Professors: C. A. Ely, D. D. Johnson, G. D. Pappas (*Ophthalmology*), W. M. Rogers, S. C. Shen

Instructors: P. W. Brandt, J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, O. Hase, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman, V. Tennyson.

Assistants: E. M. Jacoby, B. J. Serber

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Johnson, Pappas, Shen, Smelser, and assistants

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. Interdepartmental course. 4 pts.

Lectures, demonstrations, and laboratory work correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106ST—The structure and function of the nervous system. First year. An interdepartmental course. 6 pts. Professors Carpenter and Noback (*Anatomy*), Rittenberg

(*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

Lectures, demonstrations, and laboratory.

SUMMER SESSION 1960

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professor: E. M. Papper (*chairman*)

Associate Professors: B. R. Fink, M. J. Frumin, L. S. Mark, G. G. Nahas, S. H. Ngai

Assistant Professors: L. Brand, R. M. Epstein, E. C. Hanks, J. Henley, V. Lauderdale, F. Moya, R. W. Patterson, H. Rackow, E. Salanitre, C. Sanger, H. Schwartz, C. C. Wycoff

Assistant Professor of Pediatrics: L. S. James

Associates: H. J. Cordner, M. M. Kritchman, S. M. Shnider

Instructors: I. J. Chessar, A. J. Gissen, R. Katz, R. J. Kitz, R. S. Matteo, S. N. Steen

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*chairman*), D. Shemin, W. M. Sperry (*Psychiatry*), D. B. Sprinson, H. B. Waelsch (*Psychiatry*)

Associate Professors: R. Benesch, I. Clark (*Orthopedic Surgery*), S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: G. Alexander (*Psychiatry*), M. A. Eisenberg, P. Feigelson (*Medicine*), H. B. Gillespie, E. Hirschberg (*Medicine*), A. I. Krasna, A. Lajtha (*Psychiatry*), A. Linker (*Medicine*), I. Mandl (*Obstetrics and Gynecology*), H. Meltzer (*Psychiatry*), T. D. Price (*Urology*), H. S. Simms (*Pathology*), P. Srinivasan, B. Weiss (*Psychiatry*)

Assistant Professor of Medicine: A. Freedman

Associates: E. Borek, G. Cohen (*Psychiatry*), J. A. Dain, O. R. Gabriel, I. Goodman (*Surgery*), P. E. Hochstein (*Medicine*), P. Hoffman (*Medicine*), H. C. Lawler (*Neurology*)

Associate in Medicine: G. B. Phillips

Research Associates: G. Acs, M. Berger (*Psychiatry*), R. E. Benesch, I. J. Borowitz, G. Brawerman, D. D. P. Clarke, D. H. Clouet, I. Danishefsky, O. Greengard, S. Greer, J. Horowitz, H. Moser, M. J. Mycek, A. Neidel, I. Radichevich (*Medicine*), E. Riklis, K. D. Roberts, A. Rosenberg, H. Shapiro, I. Sucher, W. Traub, E. M. Volpert (*Medicine*), P. E. Zimmering

Special Lecturer: M. Karshan

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)
Associate Professor: E. H. Mosbach (*Medicine*)
Assistant Professor: L. L. Abell (*Medicine*)
Research Associate: J. Blum (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 211–212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215–216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Enzymes. 3 pts. Tu. Th. The staff.

Prerequisite: the permission of the department.
Mechanisms of enzyme action; systematic enzymology; enzymatic processes; organized biological structures.

Biochemistry 230—Chemistry and biochemistry of the carbohydrates. The staff. 3 pts. Not given in 1960–1961.

Biochemistry 234—The proteins. 3 pts. The staff. Not given in 1960–1961.

Biochemistry 240 or R240—Introduction to x-ray crystallography. 3 pts. Professor Low. Lecture: Tu. and Th. Laboratory: three hours to be arranged.

Prerequisite: the instructor's permission.
Crystal symmetry; production and properties of x-rays; optical principles of x-ray diffraction; crystal-structure analysis; discussion of crystal-structure analyses of chemical and biochemical interest.

Biochemistry 301–302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

DERMATOLOGY

Professor: C. T. Nelson (*chairman*)
Associate Professor of Clinical Dermatology: B. M. Kesten
Associate Clinical Professors: L. P. Barker, J. L. Miller
Assistant Professors: M. Silva, G. K. Steigleder
Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, F. P. Lowenfish, T. Rosenthal, M. H. Slatkin

Associates: B. J. Chester, W. Curth, C. F. Post, M. B. Sloane
Instructors: I. Abrahams, M. Brodey, B. Dobias, J. T. Hearin, E. W. Jewell, J. T. McCarthy, R. M. Montgomery
Assistants: J. Eisert, F. R. Nataro
Lecturer: A. L. Carrion

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203–204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates.
At Vanderbilt Clinic.

Dermatology 205–206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Drs. Chester, Hearin, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Eight hours per week for twelve weeks. 3 pts. Professor Silva.
Hours to be arranged.
Given in collaboration with *Microbiology 118T*.

Dermatology 207–208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219–220—Histopathology of the skin. Professor Steigleder.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: S. E. Bradley (*chairman*)
Professors: A. Gellhorn, Y. Kneeland, Jr., G. A. Perera. J. V. Taggart, J. C. Turner
Professor of Biochemistry: K. Meyer
Professor of Clinical Medicine: C. Ragan
Clinical Professors: F. R. Bailey, H. Southworth
Clinical Professor of Psychiatry: G. E. Daniels
Associate Professor: A. P. Fishman
Associate Professors of Microbiology: C. Howe, C. Morgan
Associate Professors of Clinical Medicine: H. Aranow, C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), S. C. Werner
Associate Clinical Professors: S. W. Lambert, W. B. Sherman
Assistant Professors: N. P. Christy, A. Freedman (*Biochemistry*), H. O. Heinemann, A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley, G. M. Turino, H. O. Wheeler
Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg, A. Linker

Assistant Professors of Medical Social Work: B. E. Judkins, E. R. Pritchard

Assistant Professors of Clinical Medicine: J. M. Baldwin, Jr., S. W. Cosgriff, F. E. Demartini, A. R. Lamb, Jr., J. H. Laragh, K. L. Pines

Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, S. C. Fisk, A. W. Grokoest, M. J. Lepore, P. C. Lloyd, T. B. Russell, H. B. Wilcox, Jr.

Associates: H. M. Anderson, G. P. Bradley, H. H. Holmes, G. A. Hyman, E. Leifer, G. H. McCormack, Jr., R. B. McKittrick, G. W. Melcher, E. Middleton, Jr., I. Mufson, G. B. Phillips (*Biochemistry*)

Associates in Biochemistry: P. E. Hochstein, P. Hoffman

Research Associates: M. Angers, L. A. G. Davidson, R. Grinberg

Research Associates in Biochemistry: I. Radichevich, E. M. Volpert

Instructors: S. F. Alexander, C. Alston, A. T. Baker, G. J. Beck, R. M. Carey, C. K. Christian, H. P. Colmore, N. J. Conan, Jr., C. Gerbi, W. B. Hatfield, G. C. Hennig, D. A. Holub, J. I. Kitay, R. A. Kritzler, R. N. Lamont-Havers, K. A. McClane, W. M. Manger, J. A. L. Mathers, J. I. Meltzer, H. W. Neuberg, E. R. Pons, Jr., A. Sahagian-Edwards, R. J. Stock, C. J. Tyson, T. L. Tyson, J. E. Ultmann, E. A. Wheaton, Jr., C. R. Wise, J. A. Wood

Instructors in Medical Social Work: N. Fike, E. Shaw

Assistants: J. J. Barlow, J. W. Barry, J. T. Beatty, J. L. Berg, E. H. Bergofsky, A. L. Brewer, J. A. Coss, Jr., J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, D. M. Kanter, M. M. Lipman, M. L. Marinovich, R. Noble, E. M. Reilly, A. I. Snyder, C. A. Vicens, B. M. Wright

Lecturer: D. M. Gomez

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III

Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison

Associate in Biochemistry: T. Peters, Jr.

Instructors: J. C. Mithoefer, W. H. Mook, E. D. Rames, R. S. Sioussat

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards

Westchester Heart Association Professor of Cardiovascular Research: A. F. Cournand

Clinical Professors: M. Dinnerstein, K. J. Thomson

Associate Professors: H. M. Fritts, Jr., J. M. Jones, J. H. McClement

Associate Professors of Clinical Medicine: M. I. Ferrer, R. Harvey

Associate Clinical Professors: C. R. Gross, H. McL. Riggins

Assistant Professor: W. A. Briscoe

Assistant Clinical Professors: O. S. Baum, H. H. Coppersmith, W. R. Cunnick, A. Hoff, J. L. Leland, W. H. Stearns, P. Wermer

Associates: M. E. Campbell, A. L. Davis, L. H. Hellstrom, H. M. Hicks, D. G. Simpson, C. H. Whitney

Associate in Biochemistry: A. M. Briscoe

Research Associate: E. R. Weibel

Instructors: S. C. Alexander, E. Alpert, R. F. Alsop, E. Bauman, H. J. Brown, H. S. Collins, R. J. Conroy, J. R. Edsall, B. B. Eichler, H. Fong, B. B. Garthwaite, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, A. Mintzer, D. J. O'Leary,

H. Perrone, A. W. Phillips, C. R. Ream, H. G. Shaffeld, W. J. Seils, M. B. Smith, J. M. Sprague, A. M. Tunick

Assistants: H. S. Ballard, L. L. Davis, J. C. DiJohn, L. Fishel, D. L. Hartman, S. N. Heller, C. S. Yongue

Lecturers: M. Kuschner, W. E. Loring

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professor: A. R. Wertheim
Associate Professor of Biochemistry: E. H. Mosbach
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professor of Biochemistry: L. L. Abell
Associates: H. Colcher, A. W. Feinberg, H. Lax
Research Associate in Biochemistry: J. Blum
Instructors: J. G. Edreira, L. A. Scarrone
Assistants: C. M. Dennehy, M. DiGirolamo, E. J. Howard, J. S. Idriss, E. Schmatolla

At Montefiore Hospital:

Clinical Professor: L. Leiter
Associate Clinical Professors: S. P. Schwartz, L. E. Siltzbach
Assistant Clinical Professors: H. Gross, A. Jezer, S. Melamed, I. L. Rubin, J. B. Schwedel, I. D. Stein, B. Weingarten
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. J. W. Escher, M. Friedenson, E. Goldberger, B. E. Jacobson, G. C. Leiner, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, D. Young

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professors: C. K. Friedberg, S. Silver, L. R. Wasserman
Assistant Clinical Professors: W. M. Hitzig, H. Horn, H. D. Janowitz, M. Mendlowitz, C. B. Rabin, T. F. Yu
Associates: I. E. Gerber, F. H. King, M. F. Levitt, F. Schaffner
Instructors: M. E. Bader, R. A. Bader, S. K. Elster
Lecturers: S. Dack, H. L. Jaffe

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At St. Luke's Hospital:

Associate Clinical Professor: T. B. Van Itallie
Assistant Clinical Professors: J. G. Hilton, O. R. Jones, W. J. Pyles

Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling
Instructors: E. Andreae, S. S. Bergen, Jr., N. E. Capeci, R. Case, G. Dermksian, J. A. Feltman, M. F. Goodbody, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Marks and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introduction to experimental medicine. Two hours a week for four weeks. Second year. No pts. Professor Bradley.

Medicine 104T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Bradley.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Christy and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210.* Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems, with a review of the pertinent pharmacology. See *Pharmacology 202.*

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

A. *Diabetes.* M. W. F. Floor 2. Limited to six students each morning. Professor Pines.

B. *Thyroid.* F. Floor 10. Limited to six students. Professors Werner and Aranow.
C. *Nephritis and hypertension.* Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

D. *Allergy.* M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
E. *Cardiac.* F. Floor 10. Professor M. I. Ferrer.
F. *Arthritis.* W. F. Floor 10. Limited to four students daily. Professor Ragan.
G. *Combined endocrine.* Tu. Floor 3. Limited to six students. Professor Werner and associates.
H. *Gastrointestinal.* M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230—Differential diagnosis. Fourth year. Professor Kneeland.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231–232—Research in medicine. Under the direction of Professor Bradley.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235–236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

MICROBIOLOGY

John E. Borne Professor: H. M. Rose (*chairman*)
Professors: E. A. Kabat (*Neurology*), B. C. Seegal
Professor of Bacteriology: C. W. Jungeblut
Associate Professors: S. M. Beiser, B. F. Erlanger, G. C. Godman, S. P. Halbert (*Ophthalmology*), C. Howe (*Medicine*), C. Morgan (*Medicine*), S. W. Tanenbaum
Associate Professor of Surgery: P. S. Russell
Assistant Professors: E. W. Bassett, S. A. Ellison, K. C. Hsu, A. W. Knox, E. Y. L. Lasfargues, G. Schiffman (*Neurology*)
Associates: W. Cohen, K. C. Hsu, D. Locatcher-Khorazo (*Ophthalmology*)
Research Associates: S. Bader, A. D. Deitch, C. Morris, I. M. Mountain
Assistant: P. E. Brenneisen
Special Lecturer: M. Holden

At Mary Imogene Bassett Hospital:

Associate: H. J. Spencer

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Six hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. See *Dermatology 101T.*

Microbiology 251FST—Research in problems of microbiology, immunology, and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (*chairman*)
Professor of Clinical Neurological Surgery: J. E. Scarff
Clinical Professor: F. Cramer
Associate Professors: J. B. Campbell, D. P. Purpura
Associate Professor of Clinical Neurological Surgery: L. A. Mount, J. Ransohoff
Assistant Professor of Clinical Neurological Surgery: E. B. Schlesinger
Associates: T. J. Bridges, J. W. Correll
Instructor: E. M. Housepian
Assistant: G. Marini

At Bronx Veterans Administration Hospital:

Clinical Professor: E. Krueger

NEUROLOGY

Professors: H. H. Merritt (*chairman*), H. Grundfest
Professor of Neuropathology: A. Wolf
Professor of Anatomy: F. A. Mettler
Professor of Biochemistry: D. Nachmansohn
Professor of Microbiology: E. A. Kabat
Professors of Clinical Neurology: S. Carter, C. T. Vicale
Associate Professor: P. F. A. Hoefer
Associate Professors of Clinical Neurology: D. Sciarra, M. D. Yahr
Associate Professor of Biochemistry: I. B. Wilson
Associate Professor of Neuropathology: D. Cowen
Assistant Professors: M. V. L. Bennett, S. Ehrenpreis, R. A. Fishman, E. S. Goldensohn, J. F. Hammill, F. C. G. Hoskin, N. L. Low, L. P. Rowland, R. Wermer
Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J. Masselink, J. Moldaver
Assistant Clinical Professors: C. C. Hare, M. Silbermann, S. F. Thomas, H. G. Weitzen
Assistant Professor of Microbiology: G. Schiffman
Associates: S. M. Cohen, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, R. Pietri, F. T. Zimmerman
Associate in Biochemistry: H. C. Lawler

Associate in Psychiatry: L. R. Hewson

Research Associates: W-D. Dettbarn, L. Epstein, S. Ginsburg, H. Hartford, L. T. Kremzner, R. F. Mathewson, K. C. Nielsen, J. A. Reilly, J. P. Reuben, R. L. Thompson, A. Watanabe, L. Zablow

Research Associate in Psychiatry: S. M. Ferguson

Instructors: H. S. Barrows, J. L. O'Brien, G. F. Osler, M. R. Seiden

Assistants: L. J. Cote, E. B. Decker, W. K. Hass, J. Hardie, D. H. Harter, F. P. Iorio, K. Rabinowitz, D. L. Schotland

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.
Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick
Assistant Clinical Professors: C. B. Booth, S. Solomon
Associates: R. B. Miller, J. H. Scharf
Instructor: E. L. Demuth
Assistants: E. Eisenberg, D. Fine

At Mt. Sinai Hospital:

Clinical Professor: M. Bender
Lecturer: S. Strauss

At Rockland State Hospital:

Assistant: J. C. Saunders

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for ten weeks. Second year. Professors Merritt and Vicale.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicale.

Neurology 207–208—Neurology: examination of the patient and interpretation of findings. Ten afternoon sessions of three hours each, for a period of two and a half weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209–210—Neurology: the diseases of the nervous system. Lectures and demonstrations for eight sessions of one hour each. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241–242—Ward clinical clerkships. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*chairman*)
Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo
Associate Professors: A. A. Plentl, A. L. Southam, G. J. Vosburgh
Associate Professor of Biochemistry: S. Lieberman
Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer
Associate Professor of Clinical Medicine: J. W. Jailer
Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell
Assistant Professors: E. A. Friedman, R. L. Vande Wiele
Assistant Professor of Biochemistry: I. Mandl
Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, J. B. Rearden, L. B. Shettles, H. Speert, A. J. B. Tillman
Assistant Clinical Professors: R. E. Hall, J. R. Montgomery, D. B. Moore, H. M. M. Tovell
Associates: A. N. Fenton, M. D. Laird
Research Associates: E. Gurpide, H. Guthwin, G. M. Jacobson, W. G. Kelly, M. E. Long, L. L. Phillips
Instructors: V. J. Freda, D. J. Grandin, O. J. Miller, W. D. Todd
Assistants: G. G. Herman, R. L. O'Connell, T. J. Parks
Special Lecturer: V. G. Damon
Lecturer: C. Tietze

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 102T. Ten hours lecture. Second year.

General clinical lectures which are designed as an introduction to obstetrics and gynecology. Presentation of basic principles in the physiology of human reproduction in relation to the clinical manifestations of ovulation, fertilization, and pregnancy.

Obstetrics and Gynecology 201–202—Theory and practice of obstetrics and gynecology. Forty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203–204—Fourth year: practical work in obstetrics and gynecology.

The practical work in the obstetrics and gynecology class is given to the fourth-year class in six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Edward S. Harkness Professor: A. G. De Voe (*chairman*)
Professor of Anatomy: G. K. Smelser
Professor of Biochemistry: Z. Dische
Professor of Clinical Ophthalmology: G. M. Bruce
Clinical Professors: A. B. Reese, M. C. Wheeler
Associate Professor of Microbiology: S. P. Halbert
Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)
Associate Clinical Professors: W. S. Knighton, C. A. Perera, J. A. C. Wadsworth
Assistant Professor: V. Weimar
Assistant Professor of Anatomy: G. A. Pappas
Assistant Professor of Physiology: C. V. Harding, Jr.
Assistant Professors of Clinical Ophthalmology: G. Clark, G. R. Merriam, Jr.
Assistant Clinical Professors: R. N. Berke, J. V. Flack
Associates: H. D. H. Brown, F. D. Carroll, R. M. Day, A. de Roetth, Jr., P. Knapp, F. Payne, E. F. Regan
Associate in Microbiology: D. Locatcher-Khorazo
Research Associates: O. Lowenstein, V. Ozanics, M. C. Rittler
Instructors: E. G. Bethke, A. W. Forrest, I. S. Jones
Assistants: C. J. Campbell, R. C. Collins, A. Donn, R. M. Ellsworth, F. H. Farrant, I. Loewenfeld
Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201–202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203–204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*chairman*)
Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin
Clinical Professor: L. A. Lantzounis
Associate Professor of Biochemistry: I. Clark
Associate Professor of Clinical Orthopedic Surgery: C. T. Ryder
Associate Clinical Professor: M. B. Watkins
Assistant Professor: C. A. L. Bassett

Assistant Professors of Clinical Orthopedic Surgery: G. B. Ambrose, F. S. Craig, A. Garcia, S. R. Gaston, C. S. Neer II

Assistant Clinical Professors: E. C. Bragg, J. W. Fielding, D. K. McElroy, B. B. Stimson.

Instructor: A. Della Pietra

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201–202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield and staff.

Orthopedic Surgery 203–204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204–205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205–206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207–208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery presents a series of lectures in connection with *Surgery 102T*.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*chairman*)
Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman
Associate Professor of Clinical Otolaryngology: J. Waltner
Assistant Professor of Clinical Otolaryngology: M. Basek
Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit
Associate: E. B. Bilchick
Instructors: P. Lindenberg, S. Whitfield
Assistant: P. D. Westerhoff
Lecturers: J. Eisenson, T. Fay

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman
Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201–202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Whitfield, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Conley, Eisenson, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225–226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226–227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Whitfield, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: D. G. McKay (*chairman*)
Professor: D. H. Andersen (*Pediatrics*)
Professor of Neuropathology: A. Wolf
Professor of Surgical Pathology: R. Lattes
Associate Professors: C. Z. Garber, D. Spiro, E. E. Sproul
Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)
Associate Professor of Surgical Pathology: N. Lane
Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)
Assistant Professors: H. A. Azar, D. W. Benninghoff, W. A. Blanc, D. E. Brown, B. Kalfayan, A. Volkman
Assistant Professor of Biochemistry: H. S. Simms
Assistant Professors of Neuropathology: S. Donahue, G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)
Assistant Professor of Surgical Pathology: L. Ozzello
Associate: B. N. Berg
Associates in Neuropathology: L. M. Geller, J. H. Sung
Research Associates: S. Fiala, H. Kaunitz
Instructors: D. D. McCarthy, K. Yannopoulis
Instructor in Neuropathology: E. M. Stadlan
Assistants: P. Birk, A. Chlebus, J. G. Fink, L. Glasser, J. S. Magidson, C. Ores, H. Toch
Assistants in Surgical Pathology: W. C. Black III, J. J. DiRe, R. F. Sabbia, A. M. Van Schoote
Lecturer in Medical Illustrating: A. Feinberg

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn
Instructor: C. A. Ashley

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Goldwater Memorial Hospital:

Lecturer: M. Bevans

At Montefiore Hospital:

Professor: H. M. Zimmerman
Associate Professor: T. H. Spaet
Instructor: J. I. Berkman

At Mt. Sinai Hospital:

Professor: H. Popper
Associate Professor: S. Otani
Assistant Professors: R. Jahiel, L. Strauss
Associate in Neuropathology: P. J. Anderson

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. First and second years. 14 pts. The first portion of this course is given during May, and the rest is given in the first and second trimesters of the following year. Professors McKay, Spiro, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251–252—Research in pathology. Credit to be arranged. Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: E. C. Curnen (*chairman*)
Professor: H. E. Alexander
Professor of Pathology: D. H. Andersen
Professor of Clinical Pediatrics: S. Blumenthal
Clinical Professor: C. D. May
Associate Professors of Clinical Pediatrics: W. A. Silverman, J. A. Wolff
Associate Clinical Professors: H. S. Altman, J. M. Brush, D. S. Damrosch, C. L. Wood
Assistant Professors: M. M. Grumbach, R. C. Harris, L. S. James (*Anesthesiology*), A. G. Jameson, G. W. Mellin
Assistant Clinical Professors: W. A. Bauman, R. E. Moloshok, M. Singer
Associates: R. W. Culbert, E. F. Downs, S. P. Griffiths, W. R. Kessler, K. Sprunt
Research Associate: G. Leidy
Instructors: R. G. Ames, H. Anfanger, H. I. Cohen, C. R. Denning, M. J. Gates, R. M. Mickey, R. B. Mellins, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, P. S. Strong, D. A. Wilcox, L. F. J. Wilking, Jr., A. G. Wilson
Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., W. M. Chemris, S. J. Cohen, J. A. Costa, R. U. Donovan, J. C. Dower, L. G. M. Fox, O. L. Frick, B. German, T. B. Given, Jr., A. Gold, H. Grossman, J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Homan, P. Hudson, H. S. Hurwitz, M. H. Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, K. M. Metcalf, W. L. Mitchell, H. E. Pock,

M. H. Rachelson, R. C. Richards, A. P. Rosen, J. G. Shiller, A. L. Sitarz, W. H. Smith, W. R. Stankewick, D. Stiles, J. C. Taylor, E. Ufford, R. West, D. L. Wethers, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin
Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes
Assistant Clinical Professor: A. L. Florman
Instructors: D. Gribetz, W. Henley, L. Steinfeld, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201–202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203–204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Mellin and staff.

At Babies Hospital.

Students and hospital residents work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207–208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*chairman*)
Professor: S-C. Wang
Associate Professor: W. H. Sawyer
Assistant Professors: H. J. Bartelstone, F. G. Hofmann
Instructor: H-H. Wang
Lecturer: J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101FS—General and special pharmacology. One hour lecture or conference, first trimester; four hours lecture or conference and six hours laboratory, second trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine 209–210.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229–230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (*chairman*)
Associate Clinical Professor: M. Hoberman
Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch
Associate Professor and Director of Training for Occupational Therapists: M. L. Franciscus
Associate Professor and Director of Training for Physical Therapists: M. E. Callahan
Assistant Professor and Associate Director of Training for Occupational Therapists: M. E. Schnebly
Assistant Professor and Associate Director of Training for Physical Therapists: R. Dickinson
Associates in Occupational Therapy: D. H. Ericson, G. S. Fidler, I. P. Robinault
Associate in Physical Therapy: L. H. Cairns
Instructors in Occupational Therapy: A. A. Deutsch, A. R. Trei, T. L. Wellerson
Instructors in Physical Therapy: S. Brunnstrom, S. B. Feitelberg, K. T. San Julian, B. Talmud
Assistant: C. M. Rhodes
Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Brooklyn Veterans Administration Hospital:

Instructor: L-C. Y. Chen

At Mt. Sinai Hospital:

Assistant Clinical Professor: L. H. Wisham

At Manhattan Veterans Administration Hospital:

Instructor: L. T. Pai

At St. Luke's Hospital:

Assistant Clinical Professor: S-J. Yue

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year. Professor Darling and staff.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*chairman*)
Professors: W. L. Nastuk, W. S. Root
Westchester Heart Association Professor of Cardiovascular Research: A. Cournand (*Medicine*)
Adjunct Professor: G. Wakerlin
Associate Professors: L. T. Cizek, W. Loewenstein, W. W. Walcott
Assistant Professors: S. Chien, R. J. Dellenback, C. V. Harding, Jr. (*Ophthalmology*), M. Nocenti
Research Associates: K. Goto, N. Ishiko, S. J. Socolar, H. Lamport (*Urology*), M. J. Smith
Instructors: M. Blank, C. Fell, E. C. Gerst, S. Usami
Assistants: P. Farnsworth, H. S. Kessler

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.
Tu. Th. 3–5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measureing cardiac output, blood volume, etc.

Physiology 251–252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Biostatistics:

Professor: J. W. Fertig
Assistant Professor: A. P. Berger

Associate: P. B. Michelsen
Research Associate: N. W. Chilton
Instructor: R. Z. Gold
Assistant: A. J. Desner

Community Psychiatry:

Associate Clinical Professor of Psychiatry: E. M. Gruenberg (*Epidemiology*)
Instructor in Psychiatry: D. S. Sanders

Epidemiology:

Professor: E. G. Clark
Adjunct Professor: J. P. Fox
Associate Professor: G. L. Saiger
Assistant Professors: A. C. Gelman, M. D. Schweitzer
Adjunct Assistant Professors: W. D. M. Harris, R. F. Sikes
Instructor: F. R. Gearing
Assistants: H. M. Gold, J. Greenblum, A. B. Ritterband

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*chairman*)
Visiting Professor of Medical Sociology: E. A. Suchman
Associate Professors of Administrative Medicine: C. C. Clay, J. Elinson
Adjunct Associate Professors of Administrative Medicine: O. W. Anderson, M. Cherkasky, J. M. Pisani, C. G. Roswell, R. P. Sloan, D. B. Straus
Adjunct Associate Professor of Hospital Administration: B. C. MacLean
Assistant Professors of Administrative Medicine: H. Baumgarten, Jr., M. C. Maloney, B. Mintz, F. W. van Dyke
Adjunct Assistant Professors of Administrative Medicine: E. M. Bluestone, C. F. Muller, G. A. Silver
Research Associates in Administrative Medicine: J. E. Bryan, M. A. Morehead, J. J. Williams
Assistants in Administrative Medicine: M. A. E. Ericson, E. G. High, R. Loewenstein, M. J. Robertson, J. G. Sachar, D. M. Smith
Administrative Assistant: L. Gerold

Nutrition:

Professors: W. H. Sebrell, Jr., E. L. Severinghaus
Adjunct Professor: N. S. Scrimshaw
Associate Professor: O. A. Roels
Research Associates: S. A. Hashim, K. W. King, L. Pothier, B. A. Underwood

Occupational Medicine:

Professor: L. J. Goldwater
Associate Professor: M. B. Jacobs
Adjunct Associate Professor: I. R. Tabershaw
Adjunct Assistant Professor: M. Kleinfeld
Research Associate: A. C. Ladd
Instructor: H. Gilbert

Public Health Education:

Professor: G. Rosen
Adjunct Assistant Professor: I. S. Shapiro

Public Health Practice:

Associate Professor: M. W. Barnard
Adjunct Associate Professors: W. A. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James
Adjunct Associate Professor of Dental Public Health Practice: A. Bushel
Assistant Professor: A. J. Beckmann
Adjunct Assistant Professors: M. Antell, R. E. Rothermel
Instructors: E. R. Osterberg, W. C. Thomas, Jr.

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown
Associate Professor of Medical Entomology: R. W. Williams
Associate Professor of Parasitology: K. L. Hussey
Adjunct Assistant Professor: H. B. Shookhoff
Research Associate in Parasitology: M. C. Dunn
Instructors: K. G. Dwork, I. D. Guicherit, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, P. R. Bozzo, G. Bugbee, H. R. Cohen, E. de Armas, P. M. Densen, D. G. Dickson, W. R. Donovan, D. J. Doran, C. L. Erhardt, R. T. Fisher, S. Frant, C. N. Frey, J. J. Goldman, R. S. Goodhart, M. Greenberg, A. E. Grosso, E. Hayt, H. H. Hughes, H. O. Humbert, M. A. Jacobs, N. H. Jolliffe, J. W. Kauffman, R. N. Kerst, J. H. Kinnaman, S. G. Kohl, B. A. Kornblith, D. L. Kurtz, G. W. Larimore, S. S. Lifson, J. Masur, B. F. Mattison, J. M. May, E. A. Mosso, J. J. Nelan, B. L. Oser, B. B. Palmer, M. J. Plishner, M. Radom, I. N. Rattner, J. W. H. Rehn, P. Rogatz, F. B. Rogers, A. J. J. Rourke, L. Schneider, M. E. Segal, R. F. Sikes, J. E. Silson, J. E. Snyder, W. C. Spring, Jr., J. V. Terenzio, A. W. Thomas, D. K. Tuller, S. B. Weinberg, L. Weiner, E. Wellin, B. Werne, G. M. Wilkening, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 103FS—Statistics. A part of *Anatomy 103FS*. Three hours a week for five weeks. Professor Fertig.

Public Health 101F—Introduction to epidemiology and public health control measures. One hour a week for eleven weeks. Subject matter coordinated with *Microbiology 105F* given by the Department of Microbiology. Second year. Staff.

Public Health 101T—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203–204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Professor Goldwater and staff.

Public Health 205—Forensic medicine and medical jurisprudence. One hour a week for sixteen weeks. Lectures. Fourth year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, etc. Students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned. A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*chairman*), W. S. Langford

Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz, P. Polatin

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Clinical Professors: H. Bruch, G. E. Daniels, R. B. McGraw

Associate Professors of Medical Psychology: A. Carr, W. N. Thetford

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: N. Ackerman, V. Bernard, G. Goldman, E. M. Gruenberg (*Epidemiology*), A. Karush, K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor: S. H. Frazier

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: G. Alexander, A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: J. Cattell, D. Dunton, B. Easser, L. Gidro-Frank, M. Glusman, H. L. Hall, G. A. Jervis, J. P. Lambert, R. MacKinnon, S. Malitz, L. Moses, R. Moulton, J. D. Rainer, R. Sobel, J. Weber

Associates: G. Baker, A. B. Ballard, W. A. Brooks, J. Cedarquist, L. Cobliner, M. Cohen, J. A. Cook, A. Cooper, E. B. Davis, H. D. DeWitt, M. Farnham, W. Gaylin, R. Gilder, Jr., S. Goodman, L. R. Hewson (*Neurology*), C. Hogan, S. Karlen, J. Lubart, M. Naftalin, B. Pasquarelli, A. Polatin, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, D. Shapiro, C. W. Socarides, M. O. Strahl, R. Taylor, W. R. Watson, E. Welsch, B. Wilkens, V. Wilking

Associate in Biochemistry: G. Cohen

Research Associates: G. B. Baroff, E. I. Burdock, B. Casselman, C. J. Dalmau (*Dental and Oral Surgery*), E. A. Davidson, W. C. Dement, B. P. Dohrenwend, A. Falek, S. M. Ferguson (*Neurology*), G. Gold, M. Gold, L. F. Jarvik, L. B. Kalinowsky, L. M. Kopeloff, J. Rutschmann, K. Salzinger (*Medical Psychology*), J. Schachter, K. Sterling, S. Sutton

Research Associate in Biochemistry: M. Berger

Instructors: K. Z. Altschuler, M. J. Aronson, B. August, M. Barad, S. Berl, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, H. Chartock, L. Coleman, J. A. Cook, Z. DeFries, D. J. Dillon, D. B. Douglas, H. B. Esecover, R. W. Evans, E. Forster, O. Frankel, S. G. Gaylin, L. A. Hamilton, Jr., H. Hendin, W. Hochstetter, E. Huff, N. D. Lazar, T. Meltzer, A. M. Mesnikoff, A. Messer, J. S. Montgomery, L. M. Moss, J. O'Connor, J. F. Oliven, A. Peck, H. Potter, K. F. Prescott, R. A. Raskin, T. C. Rogers, W. C. Roehrig (*Medical Psychology*), D. Sanders (*Public Health and Administrative Medicine*), B. D. Schoenberg, J. Sheps, D. E. Sobel, C. D. Tait, R. S. Ward, W. F. Weber, J. H. Weissberg

Assistants: S. J. Applebaum, S. Budner, A. R. Kaplan, D. Sank, J. S. Schachter, M. H. Wodin

Lecturers: H. Brill, H. Davidson, S. Feder, R. C. Hunt, A. Kardiner, L. S. Kubie, S. R. Lesser, D. Levy, J. A. Millet, F. J. O'Neill, S. Rado, N. Stein

Administrative Assistant: G. Williams

At Mary Imogene Bassett Hospital:

Instructor: H. Gurian

At Bronx V.A. Hospital:

Assistant Clinical Professor: B. L. Pacella
Associates: W. Brown, J. E. Pisetsky
Instructors: A. M. Gaulocher, A. P. Luezzi

At Creedmoor State Hospital:

Clinical Professor: L. Bender
Assistant Clinical Professor: J. R. Whittier

At Henry Ittleson Center for Child Psychiatry:

Assistant Clinical Professor: W. Goldfarb

At Manhattan State Hospital:

Assistant Clinical Professor: I. Kesselbrenner
Instructors: H. C. B. Denber, H. Meiselas

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman
Associate Clinical Professor: H. I. Weinstock
Instructors: L. Linn, B. C. Meyer
Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline
Research Associate: Y. Taketomo
Assistant: G. Simpson
Research Assistant: P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton
Assistant Clinical Professor: B. Balser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Thirty one-hour lectures and small group seminars concerned with the genetic, family, and cultural processes underlying healthy behavior, the nature of anxiety, the psychological methods of adaptation to anxiety, and the processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year, Professors Kolb, Bruch, and Dunton.

Psychiatry 102S—Psychopathology. Twenty one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, Frazier, Thetford, and Watson.

Psychiatry 203–204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Gidro-Frank, Horwitz, Kesselbrenner, Langford, R. MacKinnon, Polatin, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Dr. A. Cooper and clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219–220—Psychological methods. Forenoons, twice a week. Professors Carr and Thetford.

Theories and exercises in clinical psychology. Limited to two students.

Psychiatry 221–222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

RADIOLOGY

Professors: H. W. Jacox, H. H. Rossi (*Physics*), W. B. Seaman (*chairman*), J. M. Taveras

Associate Professors: R. J. Guttmann, R. Rugh (*Biology*), J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, D. H. Baker, K. Ellis, W. G. Lutz, G. S. Schwarz, N. duV. Tapley

Associates: M. Alpert, C. B. Braestrup, D. W. Johnson, L. Rottenberg, R. Schlaeger

Instructors: H. L. Atkins, M. H. Becker, N. C. Chase, W. G. Heimann, P. L. Leslie, R. G. Prida, R. P. T. Reeves, R. Silbey, P. Tretter, R. S. Yalow

Special Lecturer: E. H. Quimby

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201—Diagnostic radiology. Two hours a week for six weeks. Third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert and Schlaeger.

Radiology 202—Radiotherapy. One hour a week for eleven weeks. Third year. Includes lectures on the basic fundamentals of radiologic physics, elementary radiobiology, and the principles of radiotherapy. Professors Jacox, Rossi, Quimby, Tapley, and Dr. Atkins.

Radiology 203–204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Baker, Seaman, Taveras, and Wells, and Dr. Alpert.

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox and Tapley.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert, Crossett, and Schlaeger.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to the degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Rossi, Rugh, Seaman, and Tapley, and Messrs. Braestrup and Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*chairman*)
Professor: V. K. Frantz
Professor of Anatomy: M. R. Murray
Professor of Surgical Pathology: R. Lattes
Professors of Clinical Surgery: G. F. Crikelair, C. D. Haagensen, R. N. Schullinger, L. W. Sloan
Clinical Professor: R. H. Wylie
Associate Professor: P. S. Russell (*Microbiology*)
Associate Professor of Surgical Pathology: N. Lane
Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, R. H. E. Elliott, Jr., D. V. Habif, R. L. Moore, M. R. Porter, T. V. Santulli
Associate Clinical Professor: J. Ferrer

Assistant Professor: J. R. Malm
Assistant Professor of Surgical Pathology: L. Ozzello
Assistant Professors of Clinical Surgery: F. P. Herter, R. B. Hiatt, D. M. Ju, F. R. McAllister, G. Sanger, J. Scudder, E. B. Self, P. D. Wiedel
Assistant Clinical Professor: E. N. Goodman
Associate in Biochemistry: I. Goodman
Research Associates: B. Johnson, G. Katz, M. S. Parshley, E. Peterson, R. F. Shaw
Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., C. R. Feind, C. W. Findlay, C. O. Griffiths, Jr., H. F. Luddecke, A. M. Markowitz, W. B. Ober, J. Prudden, F. C. Symond , Jr., A. B. Voorhees, S. G. Weissman
Research Assistant: H. H. Benitez
Assistants: A. Azzoni, C. Barlow, R. Berry, F. O. Bowman, Jr., R. E. Carlson, B. Cosman, S. J. Dickinson, L. A. Johnson, C. W. McCord, J. Price, de W. G. Richey
Assistants in Surgical Pathology: W. C. Black, Jr., J. J. DiRe, R. F. Sabbia, A. M. Van Schoote

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers
Associate Clinical Professor: J. Mithoefer
Assistant Clinical Professor: A. Jaretzki III

At Bellevue Hospital:

Clinical Professor: K. M. Lewis
Associate Clinical Professor: H. C. Maier
Assistant Clinical Professors: M. Chamberlain, R. S. Mueller, D. M. Weeks
Associates: J. Ford, W. W. Heroy, H. A. Kingsbury, P. Kirschner, A. Lambert, K. M. Lewis, Jr., E. G. Stanley-Brown, W. A. Wichern, T. S. Winslow, Jr.
Instructors: J. A. Malcolm, T. M. McNeill, W. W. Miner, R. K. Snyderman, H. Stern, J. M. Wilson, Jr.
Assistants: L. Ballantyne, R. Matflerd, M. Moley, E. T. Quash, F. R. Randall

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt
Associate Clinical Professor: H. Haimovici

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson
Associate Clinical Professors: F. H. Amendola, J. W. Littler, J. E. Thompson
Instructor: J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel
Associate Clinical Professors: A. E. W. Ada, P. C. Morton
Assistant Clinical Professors: H. F. Fitzpatrick, R. B. Stark
Instructors: R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery 205–206.*) Six hours a week for ten weeks. Second year. Professors Frantz, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery 211–212, Radiology 201–202,* and *Orthopedic Surgery 203–204.*) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209–210—Outpatient clinical clerkships. Two months, combined with *Medicine 207–208.* Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211–212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery 204–205,* five and a half weeks. Third year. Professor Frantz.

Surgery 213–214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217–218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine 221–222.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221–222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Russell and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*chairman*)
Clinical Professor: M. M. Melicow
Associate Professor of Clinical Urology: H. H. Zinsser
Associate Clinical Professor: C. T. Hazzard
Assistant Professor: H. Seneca
Assistant Professor of Biochemistry: T. Price
Assistant Professors of Clinical Urology: T. J. Sullivan, R. J. Veenema
Associates: R. Jonnard, R. F. Seidel, R. C. Yeaw
Research Associate in Physiology: H. Lamport
Instructors: S. B. Braham, A. L. Dean, J. T. Donovan, A. Uson
Assistants: T. D. Boyes, P. F. Crutchlow, L. J. Dougherty, C. A. Furey, O. M. Lilien, C. D. Miller, M. B. Pincus, M. J. Pirozzi, S. Pulrang, M. S. Roberts, T. A. Viscelli, R. P. White III, A. T. Willetts, F. Yandel, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201–202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professor Lattimer and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
Edith H. Quimby, *Special Lecturer in Radiology (Physics)*
Charles O. Beckman, *Professor of Chemistry*
W. S. Root, *Professor of Physiology*
T. Hayashi, *Professor of Zoology*
T. Duane Price, *Assistant Professor of Biochemistry*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring term. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1960 and in alternate years thereafter.*

W. F. 4–6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115–116, Mathematics 104, Chemistry 91–92,* and *Zoology 141,* or their equivalents.

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

Gross Anatomy. Required: *Textbook of Anatomy,* Cunningham, $17.50; *Atlas of Descriptive Human Anatomy, Vol. III,* Sobotta, $17.50; Dorland's or Stedman's *Medical Dictionary,* $12.50.

Microscopic Anatomy. Required: *Bailey's Textbook of Histology* (14th ed.), $11. Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, $11.

Neuroanatomy. Required: *Human Neuroanatomy* (4th ed.), Strong and Elwyn, $10; *Laboratory Manual for Neuroanatomy,* $1.10. Recommended but not required: *The Anatomy of the Nervous System* (10th ed.), Ranson and Clark, $9.50.

Embryology. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, $9.50; *Human Embryology* (2d ed.), Patten, $12.

Biochemistry. Required: *Principles of Biochemistry* (2d ed.), White, Handler, Smith, Stetten, $15; *Laboratory Manual* (1959), Staff, $2.50.

Dermatology. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, $13.50; *Practical Dermatology* (2d ed.), Lewis, $8.00; *Syphilis, Its Course and Management,* Thomas, $5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, $6.50.

Medicine. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, $4.00; *Biochemistry of Disease* (2d ed.), Bodansky, $12; *Textbook of Medicine* (10th ed.), Cecil and Loeb, $16.50; *Principles of Internal Medicine* (3d ed.), Harrison, $18.50; *Classic Descriptions of Disease,* Major, $8.50.

Microbiology. Required: *Laboratory Manual in Microbiology and Immunology,* $3.00; *Dubos' Bacterial and Mycotic Infections of Man* (3d ed.) and *Rivers' Viral and Rickettsial Infections of Man* (3d ed.), $17 per set.

Neurology. Required: *The Clinical Examination of the Nervous System* (11th ed.), Monrad-Krohn, $9.50, or *The Neurologic Examination* (2d ed.), DeJong, $20; and one of the following: *Textbook of Neurology* (2d ed.), Merritt, $12.50; *A Textbook of Clinical Neurology* (8th ed.), Wechsler, $11; *Diseases of the Nervous System,* Brain, $12. Recommended but not required: *Basis of Clinical Neurology,* Brock, $7.00; *Diseases of the Nervous System in Infancy, Childhood and Adolescence,* Ford, $29.50.

Obstetrics and Gynecology. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, $11. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, $14.

Ophthalmology. Recommended: *May's Diseases of the Eye* (22d rev. by C. A. Perera), $6; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, $8.00.

Orthopedic Surgery. Required: *Handbook of Orthopaedic Surgery* (5th ed.), A. R. Shands, $9.75; *Manual of Orthopaedic Surgery,* American Orthopaedic Association,

$1.50; *An Outline of the Treatment of Fractures* (1956), American College of Surgeons, $1.25; *Early Care of Acute Soft Tissue Injuries* (1954), American College of Surgeons, $1.25. Recommended but not required: *Textbook of Orthopedics* (1952), M. B. Howorth, $18; *Orthopaedics: Principles and Their Application* (1959), S. L. Turek, $22.50; *Trauma* (1959), H. L. McLaughlin, $18; *Fractures and Joint Injuries* (4th ed., 1952-55), R. Watson-Jones, $22; *A Manual of Fractures and Dislocations* (3d ed.), Stimson, $4.50.

Otolaryngology. Required (one of the following): *Fundamentals of Otolaryngology* (3d ed.), Boies, $8.00; *Basic Otolaryngology,* F. Lederer and A. R. Hollender, $7.50.

Pathology. Required for *101FST* (one of the following): *Textbook of Pathology,* Boyd, $12.50; *Human Pathology,* Karsner, $15; *Pathology,* Anderson, $16; *Textbook of Pathology,* Robbins, $18.

Pediatrics. Required (one of the following): *Holt Pediatrics,* Holt and McIntosh, $15; *Textbook of Pediatrics,* W. E. Nelson, $16.50. Recommended but not required: *Growth and Development of Children* (3d ed.), Watson and Lowrey, $7.75; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, $28; *Common Contagious Diseases,* Stimson and Hodes, $8.50.

Pharmacology. Required: *The Pharmacological Basis of Therapeutics* (2d ed.), Goodman and Gilman, $17.50.

Physiology. Required: *Philip Bard's Medical Physiology,* $14.

Psychiatry. Required: *Modern Clinical Psychiatry* (5th ed.), Noyes and Kolb, $8.00. Recommended but not required: *Introduction to Psychiatry* (2d ed.), English and Finch, $6.95.

Public Health. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, $14; *Preventive Medicine and Public Health* (2d ed., 1952), W. G. Smillie, $7.50; *Preventive Medicine for the Doctor in His Community,* H. R. Leavell and E. G. Clark, $10; Rosenau, *Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, $15.

Radiology. Recommended but not required: *Radiology for Medical Students,* Hodges, Lampe, and Holt, $8.50.

Surgery. Required: *Introduction to Surgery* (4th ed.), Frantz and Harvey, $6.00. Recommended but not required: *Surgery Principles and Practice,* Allen and others, $16; *Textbook of Surgery* (7th ed.), Christopher, $17; *Textbook of Surgery* (7th ed.), Cole and Elman, $17; *Manual of Anesthesiology,* Schwartz and others, $4.25; *Fundamentals of General Surgery,* Gius, $12.50.

Urology. Recommended but not required: *General Urology,* Smith, $4.50; *Principles of Urology,* Campbell, $9.50; *Urology* (1956), B. G. Clarke and L. R. DelGuercio, $4.50; *An Outline of Urology* (2d ed.), C. D. Creevy, $4.25; *Mechanisms of Urologic Disease* (1953), D. M. Davis, $4.50; *Synopsis of Urology* (5th ed.), A. I. Dodson, $4.00; *Fundamentals of Urology* (4th ed.), R. M. Nesbit, J. Lapides, and W. C. Baum, $3.00; *Handbook of Surgical Urology for Interns, Hospital Corpsmen and Nurses* (1949), N. F. Ockerblad, $3.00.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $425 to $640. Each student should also provide himself with a substage lamp. Microscopes may be rented at $8 a month or $70 for a school year. A limited supply of binoculars are available also for rental at $15 a month, or $130 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS INCLUDING THOSE IN THE GRADUATE PROGRAM

ABELL, LIESE L., *Assistant Professor of Biochemistry;* Ph.D., Frankfurt, 1935

ACKERMAN, NATHAN, *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1929; M.D., 1933

ADA, ALEXANDER E. W., *Associate Clinical Professor of Surgery;* B.A., Queen's (Ontario), 1923; M.D., 1926

AGATE, FREDERICK J., *Associate Professor of Anatomy;* A.B., Columbia, 1932; Ph.D., 1949

ALEXANDER, GEORGE, *Assistant Professor of Biochemistry;* B.S., Hobart, 1949; Ph.D., Rutgers, 1953

ALEXANDER, HATTIE E., *Professor of Pediatrics;* A.B., Goucher, 1923; M.D., Johns Hopkins, 1930

ALTMAN, HARRY S., *Associate Clinical Professor of Pediatrics;* M.D., New York University, 1921

ALTMANN, FRANZ, *Clinical Professor of Otolaryngology;* M.D., Vienna, 1925

AMBROSE, GEORGE B., *Assistant Professor of Clinical Orthopedic Surgery;* A.B., Columbia, 1940; M.D., 1943

AMENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery;* B.S., College of the City of New York, 1923; M.D., Cornell, 1927

AMOLS, WILLIAM, *Assistant Professor of Clinical Neurology;* A.B., New York University, 1938; M.D., 1942

ANDERSEN, DOROTHY H., *Professor of Pathology;* A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935

ANDERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine;* A.B., Wisconsin, 1937; M.A., 1938; A.B., Michigan, 1940; Ph.D., 1948

ANTELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice;* M.D., Long Island College, 1926; M.P.H., Harvard, 1939

ANTENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine;* B.S., College of the City of New York, 1926; M.D., Columbia, 1930

APPLEBAUM, EDMUND, *Associate Professor of Dental Anatomy;* D.D.S., New York College of Dentistry, 1922

ARANOW, HENRY, *Associate Professor of Clinical Medicine;* A.B., Harvard, 1935; M.D., Columbia, 1938

AZAR, HENRY A., *Assistant Professor of Pathology;* B.A., American University of Beirut, 1948; M.D., 1952

BACHMAN, ARNOLD L., *Assistant Professor of Radiology;* B.S., New York University, 1931; M.D., 1934

BAILEY, FREDERICK R., *Clinical Professor of Medicine;* A.B., Princeton, 1924; M.D., Johns Hopkins, 1928

BAKER, DANIEL C., Jr., *Clinical Professor of Otolaryngology;* A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939

BAKER, DAVID H., *Assistant Professor of Radiology;* M.D., Boston, 1951

BALDWIN, JOHN M., Jr., *Assistant Professor of Clinical Medicine;* M.D., Columbia, 1939

BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry;* A.B., Rochester, 1926; M.A., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937

BARKER, HAROLD G., *Associate Professor of Clinical Surgery;* A.B., Utah, 1939; M.D., Pennsylvania, 1943

BARKER, LESLIE P., *Associate Clinical Professor of Dermatology;* M.D., Columbia, 1927

BARNARD, MARGARET W., *Associate Professor of Public Health Practice;* A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935

BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology;* B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945

BASEK, MILOS, *Assistant Professor of Clinical Otolaryngology;* M.D., Charles, 1945

BASSETT, CHARLES A. L., *Assistant Professor of Orthopedic Surgery;* M.D., Columbia, 1948

BASSETT, EMMETT W., *Assistant Professor of Microbiology;* Ph.D., Ohio State, 1956

BAUM, OTTO S., *Assistant Clinical Professor of Medicine;* A.B., Harvard, 1932; M.D., 1936

BAUMAN, WILLIAM A., *Assistant Clinical Professor of Pediatrics;* B.S., Harvard, 1943; M.D., Columbia, 1947

BAUMGARTEN, HAROLD, Jr., *Assistant Professor of Administrative Medicine;* A.B., Willamette, 1945

BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice;* A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945

BEGG, CHARLES F., *Assistant Professor of Pathology;* A.B., Boston, 1935; M.D., Harvard, 1939

BEISER, SAM M., *Associate Professor of Microbiology;* Ph.D., Columbia, 1951

BENDER, LAURETTA, *Clinical Professor of Psychiatry;* M.A., Chicago, 1923; M.D., State Univ. of Iowa, 1926

BENDER, MORRIS B., *Clinical Professor of Neurology;* M.D., Pennsylvania, 1931

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SPIRO, DAVID, *Associate Professor of Pathology;* M.D., New York University, 1944; Ph.D., Massachusetts Institute of Technology, 1956

SPRINSON, DAVID, *Professor of Biochemistry;* B.S., College of the City of New York, 1931; M.S., New York University, 1936; Ph.D., Columbia, 1946

SPROUL, EDITH E., *Associate Professor of Pathology;* A.B., Barnard, 1928; M.D., Columbia, 1931

SRINIVASAN, PARITHYCHERY, *Assistant Professor of Biochemistry;* B.Sc., Madras, 1946; Ph.D., 1953

STARK, RICHARD B., *Assistant Clinical Professor of Surgery;* A.B., Stanford, 1936; M.D., Cornell, 1941

STEARNS, WILLIAM H., *Assistant Clinical Professor of Medicine;* A.B., Kalamazoo, 1930; M.D., Columbia, 1934

STEER, CHARLES M., *Associate Professor of Clinical Obstetrics and Gynecology;* A.B., Columbia, 1933; M.D., 1937; Med.Sc.D., 1942

STEIGLEDER, GERHARD K., *Assistant Professor of Dermatology;* M.D., Frankfurt, 1955

STEIN, IRWIN D., *Assistant Clinical Professor of Medicine;* A.B., New York University, 1928; M.D., 1931

STEINER, ALFRED, *Associate Clinical Professor of Medicine;* B.S., Richmond, 1930; M.D., Medical College of Virginia, 1933; Med.Sc.D., Columbia, 1938

STIMSON, BARBARA B., *Assistant Clinical Professor of Orthopedic Surgery;* A.B., Vassar, 1919; M.D., Columbia, 1923

STINCHFIELD, FRANK E., *Professor of Orthopedic Surgery;* B.S., North Dakota, 1932; M.D., Northwestern, 1934

STRAUS, DONALD B., *Adjunct Associate Professor of Administrative Medicine;* A.B., Harvard, 1938; M.B.A., 1940

STRAUSS, LOTTE, *Assistant Professor of Pathology;* M.D., Siena (Italy), 1937

SULLIVAN, THOMAS J., *Assistant Professor of Clinical Urology;* B.S., College of the City of New York, 1933; M.D., Maryland, 1937

TABERSHAW, IRVING R., *Adjunct Associate Professor of Occupational Medicine;* B.S., Pennsylvania, 1928; M.D., Long Island, 1933

TAGGART, JOHN V., *Professor of Medicine,* M.D., Southern California, 1940

TANENBAUM, STUART W., *Associate Professor of Microbiology;* B.S., College of the City of New York, 1944; Ph.D., Columbia, 1951

TAPLEY, DONALD F., *Assistant Professor of Medicine;* B.S., Acadia, 1948; M.D., Chicago, 1952

TAPLEY, NORAH DUV., *Assistant Professor of Radiology;* A.B., Mount Holyoke, 1945; M.D., Columbia, 1949

TAUSIG, DANIEL P., *Assistant Professor of Anesthesiology;* M.A., Columbia, 1933; M.D., 1937

TAVERAS, JUAN M., *Professor of Radiology;* B.S., Normal School, Santiago, 1937; M.D., Santiago, 1943; M.D., Pennsylvania, 1949

TAYLOR, GURNEY, *Assistant Clinical Professor of Medicine;* A.B., Williams, 1925; M.D., Pennsylvania, 1930

TAYLOR, HOWARD C., *Professor of Obstetrics and Gynecology;* Ph.B., Yale, 1920; M.D., Columbia, 1924

THETFORD, WILLIAM N., *Associate Professor of Medical Psychology;* A.B., DePauw, 1944; Ph.D., Chicago, 1949

THOMAS, E. DONNALL, *Associate Clinical Professor of Medicine;* A.B., Texas, 1941; M.A., 1943; M.D., Harvard, 1946

THOMAS, SAMUEL F., *Assistant Clinical Professor of Neurology;* A.B., Princeton, 1936; M.D., Columbia, 1940

THOMPSON, JAMES E., *Associate Clinical Professor of Surgery;* A.B., Texas, 1924; M.D., 1927

THOMSON, K. JEFFERSON, *Associate Clinical Professor of Medicine;* M.D., Harvard, 1931

TILLMAN, ALVIN J. B., *Assistant Professor of Clinical Obstetrics and Gynecology;* A.B., Columbia, 1924; M.D., 1927

TOVELL, HAROLD M. M., *Assistant Clinical Professor of Obstetrics and Gynecology;* B.A., Toronto, 1941; M.D., 1945

TRUSSELL, RAY E., *Joseph R. DeLamar Professor of Administrative Medicine; Associate Dean (Public Health);* A.B., Iowa, 1936; M.D., 1941; M.P.H., Johns Hopkins, 1947

TURINO, GERARD M., *Assistant Professor of Medicine;* A.B., Princeton, 1945; M.D., Columbia, 1948

TURNER, JOSEPH C., *Professor of Medicine;* A.B., Columbia, 1929; M.D., 1933; Med.Sc.D., 1940

VANDE WIELE, RAYMOND L., *Assistant Professor of Obstetrics and Gynecology;* M.D., Louvain, 1947

VAN DYKE, FRANK W., *Assistant Professor of Administrative Medicine;* A.B., Union College, 1939; M.S., Columbia, 1954

VAN DYKE, HARRY B., *David Hosack Professor of Pharmacology;* B.S., Chicago, 1918; Ph.D., 1921; M.D., Rush, 1923

VAN ITALLIE, THEODORE B., *Associate Clinical Professor of Medicine;* B.S., Harvard, 1941; M.D., Columbia, 1945

VEENEMA, RALPH J., *Assistant Professor of Clinical Urology;* A.B., Calvin, 1938; M.D., Jefferson, 1945

VICALE, CARMINE T., *Professor of Clinical Neurology;* A.B., New York University, 1929; M.D., 1933

VOLKMAN, ALVIN, *Assistant Professor of Pathology;* B.S., Union, 1947; M.D., Buffalo, 1951

VON LACKUM, WILLIAM H., *Assistant Clinical Professor of Orthopedic Surgery;* B.S., Iowa, 1916; M.D., 1918; Med.Sc.D., Columbia, 1935

VOSBURGH, GILBERT J., *Associate Professor of Obstetrics and Gynecology;* A.B., Princeton, 1938; M.D., Johns Hopkins, 1942

WADSWORTH, JOSEPH A. C., *Associate Clinical Professor of Ophthalmology;* B.S., Davidson, 1935; M.D., Duke, 1939

WAELSCH, HEINRICH B., *Professor of Biochemistry;* M.D., Prague, 1929; Ph.D., 1930

WAKERLIN, GEORGE, *Adjunct Professor of Physiology;* B.S., Chicago, 1925; Ph.D., 1926; M.D., Rush, 1926

WALCOTT, WILLIAM W., *Associate Professor of Physiology;* A.B., Yale, 1933; Ph.D., Columbia, 1944

WALTNER, JULES, *Associate Professor of Clinical Otolaryngology;* M.D., University of Debrecen (Hungary), 1933

WANG, SHIH-CHUN, *Professor of Pharmacology;* B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940

WASSERMAN, LOUIS R., *Associate Clinical Professor of Medicine;* A.B., Harvard, 1931; M.D., Rush, 1935

WATKINS, MELVIN B., *Associate Clinical Professor of Orthopedic Surgery;* A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936

WEBER, JOHN, *Assistant Clinical Professor of Psychiatry;* A.B., Duke, 1939; M.D., Yale, 1943

WEEKS, DAVID M., *Assistant Clinical Professor of Surgery;* M.D., Michigan, 1927

WEIMAR, VIRGINIA, *Assistant Professor of Ophthalmology;* B.S., Oregon, 1944; M.S., 1947; Ph.D., Pennsylvania, 1951

WEINGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine;* M.D., Frankfort, 1922

WEINSTOCK, HARRY I., *Associate Clinical Professor of Psychiatry;* A.B., Columbia, 1920; M.D., 1923

WEISS, BENJAMIN, *Assistant Professor of Biochemistry;* B.S., Iowa, 1944; Ph.D., Illinois, 1949

WEITZEN, HYMAN G., *Assistant Clinical Professor of Neurology;* A.B., New York University, 1934; M.D., 1938

WELLS, JOSEPHINE S., *Associate Professor of Radiology;* A.B., Barnard, 1932; M.D., Columbia, 1938

WERMAN, ROBERT, *Assistant Professor of Neurology;* A.B., New York University, 1948; M.D., 1953

WERNER, SIDNEY C., *Associate Professor of Clinical Medicine;* A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937

WERTHEIM, ARTHUR R., *Associate Professor of Medicine;* A.B., Dartmouth, 1935; M.D., Jefferson, 1939

WHEELER, HENRY O., *Assistant Professor of Medicine;* M.D., Harvard, 1951

WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology;* A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938

WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry;* A.B., Harvard, 1939; M.D., Columbia, 1943

WIEDEL, PHILIP D., *Assistant Professor of Clinical Surgery;* B.S., Cannes, France, 1934; A.B., Columbia, 1938; M.D., 1941

WILCOX, ELIZABETH, *Assistant Professor of Nursing;* A.B., Mount Holyoke, 1924

WILCOX, HERBERT B., Jr., *Assistant Clinical Professor of Medicine;* A.B., Yale, 1930; M.D., Columbia, 1934

WILLIAMS, ROGER W., *Associate Professor of Medical Entomology;* B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947

WILSON, IRWIN B., *Associate Professor of Biochemistry;* B.S., College of the City of New York, 1941; M.A., Columbia, 1947; Ph.D., 1948

WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation;* B.S., New York University, 1938; M.D., Chicago, 1943

WOLCOTT, DELPHINE, *Assistant Professor of Nursing;* B.S., Columbia, 1926

WOLF, ABNER, *Professor of Neuropathology;* A.B., Columbia, 1923; M.D., 1926

WOLF, BERNARD S., *Associate Clinical Professor of Radiology;* B.S., New York University, 1932; M.D., 1936

WOLFF, JAMES A., *Associate Professor of Clinical Pediatrics;* A.B., Harvard, 1935; M.D., New York University, 1940

WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics;* B.S., New York University, 1926; M.D., Yale, 1930

WOODMAN, De GRAAF, *Clinical Professor of Otolaryngology;* B.S., Cornell, 1917; M.D., 1926

WYCOFF, CHARLES C., *Assistant Professor of Anesthesiology;* A.B., California, 1941; M.D., 1943

WYLIE, ROBERT H., *Clinical Professor of Surgery;* Ph.B., Yale, 1927; M.D., Columbia, 1931

YAHR, MELVIN D., *Assistant Dean; Associate Professor of Clinical Neurology;* A.B., New York University, 1939; M.D., 1943

YU, T'SAI-FAN, *Assistant Clinical Professor of Medicine;* B.A., Ginling College, 1932; M.D., Peiping Union Medical College, 1936

YUE, SHYH-JONG, *Assistant Clinical Professor of Physical Medicine and Rehabilitation;* M.D., National College of Medicine, Shanghai, 1938

ZAMENHOF, STEPHEN, *Associate Professor of Biochemistry;* M.E., Warsaw Polytechnic, 1933; D.Tech.Sc., 1936; Ph.D., Columbia, 1949

ZIMMERMAN, HARRY M., *Professor of Pathology;* B.S., Yale, 1924; M.D., 1927

ZINSSER, HANS H., *Associate Professor of Clinical Urology;* B.S., Harvard, 1938; M.D., Columbia, 1942

ZINTEL, HAROLD A., *Clinical Professor of Surgery;* B.S., Akron, 1934; M.D., Pennsylvania, 1938

ZUBIN, JOSEPH, *Professor of Medical Psychology;* A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1932

SLANETZ, CHARLES A., *Curator of Animal Husbandry;* B.S., Connecticut, 1922; M.S., 1923; Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 27 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1960

Alling, Stearly—Mary Fletcher Hospital, Burlington, Vt.
Anderson, Richard A.—Mary Fletcher Hospital, Burlington, Vt.
Anderson, Richard D.—Charity Hospital of Louisiana, New Orleans, La.
Appel, Stanley—Massachusetts General Hospital, Boston, Mass.
Beller, Barry M.—University of Chicago Clinics, Chicago, Ill.
Blumenthal, Jesse A.—St. Luke's Hospital, New York City
Bradley, Edward B.—Syracuse Medical Center, Syracuse, N.Y.
Braun, Peter—Boston City Hospital, Boston, Mass.
Brownlee, William H.—Roosevelt Hospital, New York City
Callan, Desmond—Montefiore Hospital, New York City
Canellos, George P.—Massachusetts General Hospital, Boston, Mass.
Chase, Richard A.—Grace-New Haven Community Hospital, New Haven, Conn.
Choy, Martin F.—San Francisco General Hospital, San Francisco, Calif.
Clark, Julian J.—Montefiore Hospital, New York City
Clark, Rita W.—Montefiore Hospital, New York City
Clutz, Richard B.—Roosevelt Hospital, New York City
Coats, Thomas F.—Roosevelt Hospital, New York City
Coffey, Edward L.—Presbyterian Hospital, New York City
Cohen, Michael I.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Cohen, Peter J.—University of California Hospital, Los Angeles, Calif.
Cummings, Dean W.—Los Angeles County Hospital, Los Angeles, Calif.
Dawes, Henry F.—Roosevelt Hospital, New York City
De Simone, Arthur R.—Georgetown University Hospital, Washington, D.C.
Denner, Joseph L.—Methodist Hospital, Brooklyn, N.Y.
Dennick, Leonard G., Jr.—Syracuse Medical Center, Syracuse, N.Y.
Doherty, Richard A.—Beth Israel Hospital, Boston, Mass.
Dolganos, Ellen M.—St. Luke's Hospital, New York City
Downey, James L.—Bellevue Hospital, New York City
Doyle, George B.—Hartford Hospital, Hartford, Conn.
Dunne, Peter B.—Bellevue Hospital, New York City
Eddison, Grace G.—Bellevue Hospital, New York City
Ehrmann, Norbert A.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Emde, Robert N.—University of Minnestoa Hospitals, Minneapolis, Minn.
Fabrega, Horacio—St. Luke's Hospital, New York City
Forker, George N.—Grace-New Haven Community Hospital, New Haven, Conn.
Forwand, Stanley A.—New England Center Hospital, Boston, Mass.
Glezen, John M.—Syracuse Medical Center, Syracuse, N.Y.
Glinsmann, Walter H.—The New York Hospital, New York City
Goldfinger, Stephen E.—Massachusetts General Hospital, Boston, Mass.
Hanson, Kenneth C.—Charity Hospital of Louisiana, New Orleans, La.
Heimarck, Gregory J.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Heller, Stanley S.—Mount Sinai Hospital, New York City
Hersh, Evan M.—St. Luke's Hospital, New York City
Hicks, William R.—University of Chicago Clinics, Chicago, Ill.
Hollander Joshua—Vanderbilt University Hospital, Nashville, Tenn.
Holsclaw, Douglas S.—University of Chicago Clinics, Chicago, Ill.
Hoppin, Frederic G., Jr.—Palo Alto-Stanford Medical Center, Stanford, Calif.
Howes, Edward L., Jr.—Grace-New Haven Community Hospital, New Haven, Conn.
Janin, Matthew J.—University of California Hospitals, San Francisco, Calif.
Johnson, John R.—St. Luke's Hospital, New York City
Kallen, Roland G.—Bellevue Hospital, New York City
Kane, Kendall K.—St. Luke's Hospital, New York City
Kao, Priscilla M.—Pennsylvania Hospital, Philadelphia, Pa.
Kaufman, Roger S.—Pennsylvania Hospital, Philadelphia, Pa.
Keller, Howard I.—Medical College of Virginia, Richmond, Va.
King, Donald L.—Walter Reed Army Hospital, Washington, D.C.
Klein, Herbert A.—Montefiore Hospital, New York City
Korhammer, Alan F.—University of Washington Hospital, Seattle, Wash.
Kroll, Arnold J.—Beth Israel Hospital, Boston, Mass.
Kronfeld, Peter P.—Bellevue Hospital, New York City
Leach, Charles N., Jr.—Bellevue Hospital, New York City
Lehwalder, Laurus W.—Presbyterian Hospital, New York City
Lennon, Arthur J.—St. Luke's Hospital, New York City
MacLean, Neil M.—Mary Hitchcock Memorial Hospital, Hanover, N.H.
MacLowry, James D.—Los Angeles County Hospital, Los Angeles, Calif.
Marubbio, A. Thomas, Jr.—Los Angeles County Hospital, Los Angeles, Calif.
Marx, Herbert J.—Presbyterian Hospital, New York City
Mayers, Lester B.—Bellevue Hospital, New York City

Milligan, Richard S.—Santa Clara County Hospital, San Jose, Calif.
Mogil, Sandra L.—Beth Israel Hospital, Boston, Mass.
Moroff, Saul V.—Bronx Municipal Hospital, New York City
Nadel, Alfred J.—Letterman Army Hospital, San Francisco, Calif.
Nelson, Kenneth M.—University of Virginia Hospital, Charlottesville, Va.
Neuhardt, Robert G.—Bellevue Hospital, New York City
Nicklaus, Ted M.—University of Utah Hospitals, Salt Lake City, Utah
Nold, Mary B.—University of Minnesota Hospitals, Minneapolis, Minn.
Nova, Harvey R.—St. Vincent's Hospital, New York City
Oppenheim, Joost J.—King County Hospital, Seattle, Wash.
Palombo, Stanley R.—University of California Hospitals, San Francisco, Calif.
Penn, Audrey S.—Bronx Municipal Hospital, New York City
Phelps, Paulding—Philadelphia General Hospital, Philadelphia, Pa.
Picoff, Ronald C.—Mary Fletcher Hospital, Burlington, Vt.
Pincus, Jonathan H.—Kings County Hospital, Brooklyn, N.Y.
Raine, Alan C.—St. Luke's Hospital, New York City
Ravel, Richard—Jackson Memorial Hospital, Miami, Fla.
Reilly, Herbert F., Jr.—Mary Fletcher Hospital, Burlington, Vt.
Richards, Ernest C.—St. Luke's Hospital, New York City
Robbins, Jay H.—Mount Sinai Hospital, New York City
Roman, Theodore P.—Presbyterian Hospital, New York City
Rosen, Ora M.—Bronx Municipal Hospital, New York City
Rowland, Christopher—Bellevue Hospital, New York City
Rucker, Charles M.—University of Chicago Clinics, Chicago, Ill.
Sachs, John R.—North Carolina Memorial Hospital, Chapel Hill, N.C.
Salot, William H.—Harper Hospital, Detroit, Mich.
Scham, Stewart M.—University of Chicago Clinics, Chicago, Ill.
Schuh, Fredric D.—St. Luke's Hospital, New York City
Schwartz, Elias—Montefiore Hospital, New York City
Seto, Dexter S.—Albany Hospital, Albany, N.Y.
Smith, Lloyd D.—St. Luke's Hospital, New York City
Smith, Richard S.—Bellevue Hospital, New York City
Smith, Thomas G., Jr.—Bronx Municipal Hospital, New York City
Solomon, Sheila H.—Royal Victoria Hospital, Montreal, Que.
Sorger, Martin L.—Presbyterian Hospital, New York City
Stanley, George R.—Letterman Army Hospital, San Francisco, Calif.
Stassa, George—Bronx Municipal Hospital, New York City
Suarez, John M.—Palo Alto-Stanford Medical Center, Stanford, Calif.
Swinton, Neil W., Jr.—St. Luke's Hospital, New York City
Taylor, William R.—Pennsylvania Hospital, Philadelphia, Pa.
Temple, William E.—University of Chicago Clinics, Chicago, Ill.
Touloukian, Robert J.—Bellevue Hospital, New York City
Troupin, Allan S.—Syracuse Medical Center, Syracuse, N.Y.
Troupin, Rosalind C.—Syracuse Medical Center, Syracuse, N.Y.
Trunnell, Thomas L.—University Hospitals, Madison, Wis.
Urschel, William P.—U.S. Naval Hospital, Bethesda, Md.
Weiss, Bernard—Presbyterian Hospital, New York City

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1961

Allen, Charles DeBertram — Sanford, Me.
A.B., Harvard, 1957
Alling, Frederic Augustus — Montclair, N.J.
A.B., Princeton, 1952
Argall, Temby Richie — Lakesville, Conn.
A.B., Yale, 1957
Banks, Peter Alan — Chestnut Hill, Mass.
A.B., Harvard, 1957
Bard, David Sayre — New York City
B.S., Stetson, 1957
Bates, Griffin Miller, Jr. — Jamaica, N.Y.
A.B., Hamilton, 1957
Becker, Heber Weidler, Jr. — Lancaster, Pa.
B.S., Franklin and Marshall, 1957
Beckman, Daryl Elizabeth — Bryn Mawr, Pa.
A.B., Mount Holyoke, 1957
Benjamin, Burton Irving — Forest Hills, N.Y.
A.B., Hamilton, 1957
Billig, Stuart Lawrence — New York City
A.B., Hamilton, 1957
Bowe, Edward Thomas — New York City
B.S., Columbia, 1957
Brill, Charles Beauford — New York City
A.B., Lafayette, 1957
Brunjes, Carl Frederick — Hartsdale, N.Y.
A.B., Yale, 1957
Bullwinkel, George Albert, Jr. — Rye, N.Y.
A.B., Yale, 1957
Campbell, Allen Barry — Cleveland Heights, Ohio
A.B., Princeton, 1957
Campbell, Patricia Ann — High Falls, N.Y.
A.B., Vassar, 1956
Christensen, Edward Warren — New York City
A.B., Columbia, 1957
Clark, Hugh — Oldwick, N.J.
A.B., Williams, 1957
Clevenger, Joseph Henry, Jr. — Muncie, Ind.
A.B., Princeton, 1957
Cohen, Martin Noel — Passaic, N.J.
A.B., Harvard, 1957
Cohen, Stanley — Brooklyn, N.Y.
A.B., Columbia, 1957
Cohn, Lawrence Jerome — Brooklyn, N.Y.
B.S., Franklin and Marshall, 1957
Corning, Howard Burt — Syosset, N.Y.
A.B., Harvard, 1957
Cross, Carroll E. — Seattle, Wash.
A.B., Pomona, 1957
Curran, John Patrick — St. Paul, Minn.
A.B., Saint Mary's, 1957
Dans, Peter Emanuel — New York City
B.S., Manhattan, 1957
Dantzler, William Hoyt — Milwaukee, Wis.
A.B., Princeton, 1957
Decker, Norman — New York City
A.B., Columbia, 1957
Dennis, Allen Johnson, Jr. — Macon, Ga.
A.B., Rice Institute, 1957
Deuel, Thomas Franklin — Short Hills, N.J.
A.B., Princeton, 1957
DeWitt, Robert James — Oconto, Wis.
A.B., Carleton, 1957
Duberstein, Joel Lawrence — Bayonne, N.J.
A.B., Princeton, 1957
Duncan, William Y., III — New Haven, Conn.
B.S., Yale, 1953
Durante, Lawrence John — Long Island City, N.Y.
A.B., Princeton, 1957
Dwyer, Edward Michael — Plymouth, Pa.
A.B., Columbia, 1957
Emery, Edward Stanley, III — Milton, Mass.
A.B., Princeton, 1957
Finkel, Jerry Bernard — New York City
A.B., Columbia, 1957
Flemming, William Hare — Columbus, Ohio
A.B., Yale, 1957
Gale, James Lyman — Concord, Mass.
A.B., Harvard, 1957
Gilman, Richard Alan — Swampscott, Mass.
A.B., Williams, 1957
Ginsberg, Joel — Brooklyn, N.Y.
A.B., Princeton, 1956
Glass, Joseph Lewis — Lynbrook, N.Y.
A.B., Princeton, 1957
Golden, Gerald Samuel — Newark, N.J.
A.B., Princeton, 1957
Graham, Paul A. — Wheeling, W. Va.
A.B., Princeton, 1956
Gregory, Raymond Frederick — Galveston, Tex.
A.B., Princeton, 1957
Grossbard, Lionel — Brooklyn, N.Y.
A.B., Columbia, 1957
Grossman, Frederick Maurice — El Paso, Tex.
A.B., Harvard, 1957
Guggenheim, Frederick Gibson — Washington, D.C.
A.B., Yale, 1957
Gwyn, Paul Perkins, Jr. — West Jefferson, N.C.
A.B., Princeton, 1957
Harvey, Seth — New York City
A.B., Princeton, 1955
Hendricks, Ed Jerald — Dallas, Tex.
A.B., Rice Institute, 1957
Hope, Peter Blanchard — New York City
A.B., Harvard, 1957
Janoski, Alfonso Hubert — Bloomfield, N.J.
A.B., Seton Hall, 1957
Kalinske, Robert Wayne — Tucson, Ariz.
A.B., Yale, 1957
Katz, Edward Lyle — Hartford, Conn.
A.B., Princeton, 1957
Katz, Leonard Allen — Buffalo, N.Y.
A.B., Yale, 1957
Knebel, Ruthmary Spear — Canaan, N.Y.
A.B., Mount Holyoke, 1956
Kohler, Peter Francis — Milwaukee, Wis.
A.B., Princeton, 1957
Kohn, Leonard David — Easton, Pa.
A.B., Columbia, 1957
Kovel, Joel Stephen — Roosevelt, N.Y.
B.S., Yale, 1957
Labourdette, Irene Lois — Lincoln Park, N.J.
A.B., Oberlin, 1952
M.A., Iowa, 1954
Lemlich, Arthur — New York City
B.S., Columbia, 1957
Levitzky, Munro Joseph — Brooklyn, N.Y.
A.B., Columbia, 1957
Luftschein, Stanley — Flushing, N.Y.
A.B., Columbia, 1957
Luikart, William Ernst — Woodhaven, N.Y.
A.B., Columbia, 1957
Mack, Thomas McCulloch — Minden, Nev.
A.B., Carleton, 1957

Maenza, Ronald Morton — Jackson Heights, N.Y.
A.B., Columbia, 1957
Marcuse, Donald James — New York City
A.B., Harvard, 1957
Marglin, Arnold Gershaw — Hollywood, Calif.
A.B., Harvard, 1957
Melges, Frederick Towne — Battle Creek, Mich.
A.B., Princeton, 1957
Meyer, James Hugh — Milwaukee, Wis.
A.B., Princeton, 1957
Meyerson, Arthur Theodore — New York City
A.B., Columbia, 1957
Millheiser, Peter John — New York City
A.B., Columbia, 1957
Morgan, Walter Edward, III — Glen Ridge, N.J.
A.B., Wesleyan, 1957
Mulcare, Robert John — Garden City, N.Y.
A.B., Princeton, 1957
Nachamie, Benjamin Abraham — Brooklyn, N.Y.
A.B., Columbia, 1957
Neer, Robert Marshall, Jr. — Urbana, Ohio
A.B., Harvard, 1957
Nesti, Richard P. — West New York, N.J.
A.B., Columbia, 1954
O'Connell, Francis Daniel — Uxbridge, Mass.
A.B., Harvard, 1957
Pflueger, Otto Henry, Jr. — San Francisco, Calif.
A.B., Reed, 1957
Philip, James Louis — Worcester, Mass.
B.S., Michigan, 1957
Powell, William John, Jr. — Duxbury, Mass.
A.B., Harvard, 1957
Pressman, David L. — Chelsea, Mass.
A.B., Harvard, 1957
Redman, Helen Cornelia — Great Neck, N.Y.
A.B., Rochester, 1957
Reich, Paul Richard — Hackensack, N.J.
A.B., Princeton, 1957
Reichel, William — New York City
A.B., Columbia, 1957
Robbins, Michael Daniel, Jr. — West Englewood, N.J.
A.B., Amherst, 1955
Robinson, James Alan — Mount Vernon, N.Y.
A.B., Wesleyan, 1957
Robinson, John Lee — Omaha, Neb.
A.B., Yale, 1957
Rosen, John Friesner — New York City
A.B., Harvard, 1957
Ryan, John Francis — Jamaica Plain, Mass.
A.B., Boston College, 1957
Schuh, Sara Daley — New York City
A.B., Vassar, 1957
Schwarzberg, Jane Elizabeth — New York City
A.B., Barnard, 1957
Schwartzman, William Robert — New York City
A.B., Columbia, 1957
Scott, Robert Henderson — Northfield, Minn.
A.B., Carleton, 1957
Sherwood, Louis Maier — Hempstead, N.Y.
A.B., Johns Hopkins, 1957
Skolnick, M. Leon — Forest Hills, N.Y.
A.B., Columbia, 1957
Song, Chull Sung — Seoul, Korea
A.B., Birmingham Southern, 1957
Standfast, Susan Jane — Binghamton, N.Y.
A.B., Wells, 1957
Stevenson, Donald Day — Tenafly, N.J.
A.B., Princeton, 1957
Stouch, William Haydn — York, Pa.
A.B., Princeton, 1957
Strayer, Luther Milton, III — Stratford, Conn.
A.B., Princeton, 1957
Stuart, Philip Frazer — Lakewood, Ohio
A.B., Bowdoin, 1957
Talbott, John Andrew — Eden (Buffalo), N.Y.
A.B., Harvard, 1957
Teran, Irwin Burton — Flushing, N.Y.
A.B., Columbia, 1957
Terry, Stephen — Tucson, Ariz.
A.B., B.S., Arizona, 1957
Thurer, Richard Jerome — Hicksville, N.Y.
A.B., Princeton, 1957
Townsend, Eleanor Meneely — New York City
A.B., Sarah Lawrence, 1957
Troy, Bart Lynch — Melrose, Mass.
A.B., Georgetown, 1957
Tucker, Marjorie Jane — Brooklyn, N.Y.
A.B., Radcliffe, 1957
Uprichard, Eleanore E. — Yonkers, N.Y.
A.B., Rochester, 1958
Wanderer, Alan Anson — Woodside, N.Y.
A.B., Earlham, 1957
Wanger, Stephen Lewis — Albany, N.Y.
A.B., Yale, 1957
Watson, Charles Gray — Carnegie, Pa.
A.B., Princeton, 1957
Weber, Eric Taylor — Clinton, N.Y.
A.B., Oberlin, 1957
Weil, Richard, III — New York City
A.B., Princeton, 1957
Whaley, David Anthony — Kenmore, N.Y.
A.B., Rochester, 1957
Wilson, Paul Tyler — New York City
A.B., Columbia, 1954

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THIRD-YEAR CLASS—CLASS OF JUNE, 1962

Ackerman, A. Bernard — Elizabeth, N.J.
A.B., Princeton, 1958
Allen, Thomas E. — Milwaukee, Wis.
A.B., Princeton, 1958
Augur, Newell A., Jr. — St. Louis, Mo.
B.E., Yale, 1958
Baker, Fred L. — Daviess, Ky.
A.B., Wabash, 1958
Barlow, Peter B. — Englewood, N.J.
A.B., Harvard, 1958
Behrens, Myles M. — Brooklyn, N.Y.
A.B., Yale, 1958
Bell, Donald C. — Wooster, Ohio
A.B., Wooster, 1953
B.D., Chicago, 1956
Bell, H. Glenn, Jr. — San Francisco, Calif.
A.B., Stanford, 1958
Bell, Robinette Nixon — New York City
A.B., Smith, 1951
Berkes, Kenneth J., Jr. — Baldwin, N.Y.
A.B., Hamilton, 1958
Berman, Howard H. — Silver Spring, Md.
A.B., Duke, 1958
Bezahler, Stephen — Camden, N.J.
A.B., Williams, 1958
Bowers, Henry Myers, Jr. — New York City
A.B., Princeton, 1957
Brown, Courtney Warren — Scarsdale, N.Y.
A.B., Williams, 1957
Brown, Richard M. — Princeton, N.J.
A.B., Princeton, 1958

Bruck, Harold M. Newark, N.J.
A.B., Hamilton, 1958
Brust, John C. M., Jr. Syracuse, N.Y.
A.B., Harvard, 1958
Buckley, Marcia A. Wakeman, Ohio
A.B., Mount Holyoke, 1958
Bull, Sherman M. Riverdale, N.Y.
A.B., Yale, 1958
Burress, Donald A. Wauwatosa, Wis.
A.B., Ripon, 1955
B.S., M.S., Massachusetts Institute of Technology, 1956
Campbell, James M. South Bend, Ind.
A.B., Yale, 1958
Casazza, Albert R. Secaucus, N.J.
A.B., Princeton, 1958
Cassileth, Peter A. New York City
A.B., Union, 1958
Caton, Donald Washington, D.C.
B.S., Yale, 1958
Chao, Solan New York City
A.B., Cornell, 1954
Coates, Edward D. Glendale, Calif.
A.B., Yale, 1958
Cohen, Donald S. Port Jervis, N.Y.
A.B., Hamilton, 1958
Cohen, Stanley J. Brooklyn, N.Y.
A.B., Columbia, 1958
Cohn, Peter F. Scarsdale, N.Y.
A.B., Columbia, 1958
Coulis, Despine L. Salem, Mass.
A.B., Smith, 1958
Covey, William G. New York City
A.B., Columbia, 1958
Dauber, Leonard G. Brooklyn, N.Y.
A.B., Columbia, 1958
Dubin, Howard V. New York City
A.B., Columbia, 1958
Duncan, William C., III Northampton, Mass.
A.B., Princeton, 1958
Flagg, Stephen V. Englewood, N.J.
B.S., Yale, 1957
Flood, Barbara Joyce New York City
A.B., Wellesley, 1953
Fogelberg, Earl Victor Chicago, Ill.
A.B., Princeton, 1958
Fox, Howard A. Brooklyn, N.Y.
B.S., Union, 1954
Ph.D., Columbia, 1958
Frankel, Herman Morris Brooklyn, N.Y.
A.B., Columbia, 1958
Franzone, Andrew J. New York City
A.B., Holy Cross, 1958
Gamble, Anne van N. New York City
A.B., Mount Holyoke, 1956
Geller, Arthur S. Laurelton, N.Y.
A.B., Williams, 1958
Gollance, Robert B. Brooklyn, N.Y.
A.B., Harvard, 1958
Grant, John P., Jr. New Canaan, Conn.
A.B., Amherst, 1954
Grant, Sandra Elisabeth Liberty, N.Y.
A.B., Bryn Mawr, 1958
Gray, Parke H. Hartford, Conn.
A.B., Williams, 1958
Gutstein, Robert A. Brooklyn, N.Y.
A.B., Colgate, 1958
Haft, Jacob I. Belleville, N.J.
A.B., Harvard, 1958
Hankin, Edwin Brooklyn, N.Y.
A.B., Columbia, 1958
Herzberg, Robert M. Pacific Palisades, Calif.
A.B., Reed, 1958
Hirschhorn, Norbert New York City
A.B., Columbia, 1958
Hurst, Fred S. Brooklyn, N.Y.
A.B., Princeton, 1958
Immordino, Peter A. Yonkers, N.Y.
A.B., New York University, 1958
Johnson, Warren D., Jr. Gurnee, Ill.
B.S., Carroll, 1958
Karliner, Joel S. Union City, N.J.
A.B., Columbia, 1958
Kelley, John Southampton, N.Y.
A.B., Brown, 1957
Kilburn, Howard Lee Wenatchee, Wash.
A.B., University of Washington, 1958
Kim, Dong-Su Harrison, Me.
A.B., Bowdoin, 1957
Klein, William J., Jr. Cincinnati, Ohio
A.B., Cincinnati, 1958
Kovach, John S. Shaker Heights, Ohio
A.B., Princeton, 1958
Kraut, Joel A. Jersey City, N.J.
A.B., Princeton, 1958
Kreek, Mary Jeanne Washington, D.C.
A.B., Wellesley, 1958
Lerner, Irving J. Cincinnati, Ohio
A.B., Yale, 1958
Levine, Jonathan Brooklyn, N.Y.
A.B., Columbia, 1958
Lovejoy, William P. Oldwick, N.J.
A.B., Yale, 1956
McCarroll, Henry R. St. Louis, Mo.
A.B., Princeton, 1958
McCray, Richard S. Columbus, Ohio
A.B., Wesleyan, 1954
B.D., Yale, 1957
Margolies, Lawrence Noel New York City
A.B., Columbia, 1958
Margolies, Michael N. Flushing, N.Y.
A.B., Harvard, 1958
Marks, Clement E., Jr. Bethlehem, Pa.
A.B., Dartmouth, 1958
Miller, Robert L. Elmira, N.Y.
A.B., Hamilton, 1958
Moloy, Peter Jay New York City
A.B., Harvard, 1958
Mosher, Paul W. Albany, N.Y.
A.B., Harvard, 1958
Murphy, Scott Merion, Pa.
A.B., Yale, 1958
Nadel, Martin S. Brooklyn, N.Y.
A.B., Hamilton, 1957
Nasr, Khosrow Tehran, Iran
B.S., Yale, 1958
Nisonson, Ian New York City
A.B., Columbia, 1958
Oppenheimer, Edward A. New York City
A.B., Columbia, 1958
Orahood, Richard C. Marysville, Ohio
A.B., Ohio Wesleyan, 1958
Pagliaro, Salvatore J. New York City
A.B., Columbia, 1958
Parry, Peter V. Lynbrook, N.Y.
A.B., Hofstra, 1958
Pascal, Robert R. New York City
A.B., Columbia, 1958

Patek, David J. New York City
A.B., Harvard, 1958
Pease, Paul J. Lewisburg, Ohio
A.B., Miami, 1958
Puchner, Peter J. Manitowoc, Wis.
A.B., Carleton, 1958
Purcell, Ganson, Jr. Washington, D.C.
A.B., Williams, 1958
Rappaport, Michael Lee Glencoe, Ill.
A.B., Harvard, 1958
Reber, Robert E. Circleville, Ohio
A.B., Ohio, 1958
Reese, Thomas S. Cleveland, Ohio
A.B., Harvard, 1957
Romas, Nicholas A. Endicott, N.Y.
A.B., Colgate, 1958
Root, Elihu N. New York City
B.S., College of the City of New York, 1958
Rosen, Barbara J. Dedham, Mass.
B.S., Simmons, 1956
M.S., Vassar, 1958
Rygorsky, Jerome E. Brooklyn, N.Y.
A.B., New York University, 1958
Schiff, Eugene R. Cincinnati, Ohio
A.B., Michigan, 1958
Schuster, Timothy S. Hewlett, N.Y.
A.B., Harvard, 1958
Schwartz, Gabriel H. Mount Vernon, N.Y.
A.B., Princeton, 1958
Seidenberg, Boyd H. Bronxville, N.Y.
A.B., Columbia, 1958
Sheagren, John Newcomb Rockford, Ill.
A.B., Carleton, 1957
Sherman, Spencer E. Englewood, N.J.
A.B., Princeton, 1958
Silver, Stephen E. Brooklyn, N.Y.
A.B., Princeton, 1958
Smelzer, Timothy H. Pittsburgh, Pa.
A.B., Hamilton, 1958
Solomon, Henry A. Brooklyn, N.Y.
A.B., Columbia, 1958
Steele, Thomas H. New Castle, Pa.
B.S., Haverford, 1958
Steiner, Alton L. Albany, N.Y.
A.B., Harvard, 1958
Stewart, Franz H., Jr. Miami, Fla.
A.B., Emory, 1958
Talbot, Bernard New York City
A.B., Columbia, 1958
Thompson, Robert D. Akron, Ohio
A.B., Princeton, 1958
Ulin, Richard I. New York City
B.S., Franklin and Marshall, 1958
Valuska, James W. Mingo Junction, Ohio
A.B., Princeton, 1958
Vogel, James M. New York City
A.B., Wesleyan, 1958; M.A., 1959
Waldbaum, Robert S. Brooklyn, N.Y.
A.B., Columbia, 1958
Walker, Barry R. Reading, Pa.
A.B., Yale, 1958
Waterson, K. William, Jr. Tenafly, N.J.
B.S., Washington and Lee, 1958
Weight, Forrest F., Jr. Middletown, N.Y.
A.B., Princeton, 1958
Weinstein, Joel David Memphis, Tenn.
A.B., Princeton, 1958
Weksler, Marc E. Brooklyn, N.Y.
A.B., Swarthmore, 1958
White, John J., Jr. Glen Rock, N.J.
A.B., Yale, 1958
Williams, Thomas A. Racine, Wis.
A.B., Harvard, 1958
Winslow, Robert B. Ridgefield, Conn.
A.B., Princeton, 1958
Zeft, Howard J. Philadelphia, Pa.
A.B., Princeton, 1958

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SECOND-YEAR CLASS—CLASS OF JUNE, 1963

Anderson, M. Lanier Louisville, Ky.
A.B., Smith, 1959
Arend, William P. Holland Patent, N.Y.
A.B., Williams, 1959
Aronson, William Jordan Middlesex, Mass.
A.B., Harvard, 1951
M.S., Massachusetts Institute of Technology, 1953
Assali, Albert V. Port-au-Prince, Haiti
A.B., Harvard, 1959
Bachner, Paul New York City
A.B., College of the City of New York, 1959
Banner, Richard L. Brooklyn, N.Y.
A.B., Amherst, 1959
Barth, Rolf Frederick Jackson Heights, N.Y.
A.B., Cornell, 1959
Bissell, LeClair New York City
A.B., Colorado, 1950
M.S., Columbia, 1952
Blacklow, Neil R. Belmont, Mass.
A.B., Harvard, 1959
Briska, Philip Thomas New York City
A.B., Harvard, 1952
Brown, Arthur L. Darien, Conn.
A.B., Princeton, 1959
Brown, Robert S. New York City
A.B., Harvard, 1959
Bruce, David H. Wilmington, Del.
A.B., Harvard, 1959
Brudner, Harvey Jerome Bronx, N.Y.
B.S., New York University, 1952; M.S., 1954;
Ph.D., 1959
Burd, Robert M. Bronx, N.Y.
A.B., Columbia, 1959
Cannon, Wayne D., Jr. Montevideo, Uruguay
B.S., Yale, 1959
Chun, Clyde W. Marblehead, Mass.
A.B., Harvard, 1959
Churchill, Winthrop H., Jr. Cambridge, Mass.
A.B., Harvard, 1959
Cohen, Roger David Newton Center, Mass.
A.B., Harvard, 1959
Coli, Robert Dante Warwick, R.I.
B.S., Tufts, 1959
Daugharty, Terrance M. Seattle, Wash.
B.S., Seattle, 1959
Davidson, David Beck White Plains, N.Y.
A.B., Harvard, 1959
Deakins, Susan M. Signal Mountain, Tenn.
A.B., Smith, 1958
Dickey, Richard A. Indianapolis, Ind.
A.B., Kenyon, 1959
Dickinson, Louis E., III McCook, Neb.
A.B., Harvard, 1959
Dushman, Miriam B. Bronx, N.Y.
A.B., Barnard, 1959
Ehrlich, Michael G. New York City
A.B., Dartmouth, 1959

Epstein, Murray — Brooklyn, N.Y.
A.B., Columbia, 1959
Essandoh, Samuel O. — Ghana, West Africa
A.B., Lincoln, 1958
Feig, Stephen A. — New York City
A.B., Princeton, 1958
Feldman, Martin D. — Mahopac, N.Y.
A.B., Yale, 1959
Ferrari, Dudley A. — Shelburne Falls, Mass.
A.B., Columbia, 1959
Fischer, Edwin G. — Darien, Conn.
A.B., Harvard, 1959
Fisher, Susan Michal — New York City
B.S., Chicago, 1959
Ford, Charles V. — Porterville, Calif.
A.B., California, 1959
Geller, Martin P. — Brooklyn, N.Y.
A.B., Columbia, 1959
Hakanson, Carl M. — Martinsville, Va.
A.B., Hamilton, 1959
Harell, George S. — New York City
A.B., Oberlin, 1959
Heissenbuttal, Robert H. — Mercer, Pa.
A.B., Thiel, 1959
Hoffman, Joel S. — Long Beach, N.Y.
A.B., Harvard, 1959
Howards, Stuart S. — Whitefish Bay, Wis.
A.B., Yale, 1959
Howie, Dennis P. — Brooklyn, N.Y.
A.B., Hamilton, 1959
Hunsicker, Lawrence Gheen — Darien, Conn.
A.B., Yale, 1959
Jordan, George W. — Denver, Colo.
B.S., Denver, 1959
Kahn, Mark E. — Brooklyn, N.Y.
A.B., Columbia, 1959
Kamins, Lloyd P. — Milwaukee, Wis.
B.S., California Institute of Technology, 1959
Kauderer, John G., Jr. — New York City
A.B., Columbia, 1959
Kem, David C. — Richmond, Ind.
A.B., Earlham, 1959
Krakoff, Lawrence R. — Columbus, Ohio
A.B., Yale, 1959
Kreiter, Richard L. — Davenport, Iowa
A.B., Grinnell, 1959
Krick, Warren J. — Washington, D.C.
A.B., George Washington, 1959
Larsen, Reed — Cincinnati, Ohio
A.B., Princeton, 1959
Lattes, Conrad G. — New York City
A.B., Swarthmore, 1958
Lesneski, Albert Conrad — Fort Lee, N.J.
A.B., Princeton, 1958
Lewis, Myron — Memphis, Tenn.
A.B., Dartmouth, 1959
Lindy, Jacob D. — Philadelphia, Pa.
A.B., Yale, 1959
Long, Thomas V., II — Thomasville, N.C.
A.B., North Carolina, 1959
McSherry, Elisabeth — Milton, Mass.
A.B., Radcliffe, 1960
Mackler, Gerald L. — West Hartford, Conn.
A.B., Harvard, 1959
Maletzky, Avron J. — Schenectady, N.Y.
A.B., Princeton, 1959
Manzler, Alan D. — Cincinnati, Ohio
A.B., Princeton, 1959
Mauerman, George S. — Monroe, Wis.
A.B., Vanderbilt, 1959
Michelsen, W. Jost — Boston, Mass.
A.B., Harvard, 1959
Morgan, Daniel D., Jr. — Hamden, Conn.
A.B., Yale, 1959
Muehlbauer, Peter F. — Brooklyn, N.Y.
A.B., Columbia, 1959
Muhm, Harvard Yale — St. Charles, Mo.
A.B., Yale, 1959
Murphy, John Thomas — Chappaqua, N.Y.
Princeton, 1959
Musher, Daniel M. — New York City
A.B., Harvard, 1959
Naiman, Peter Todd — Brooklyn, N.Y.
A.B., Williams, 1959
Neer, Eva Julia — New York City
A.B., Barnard, 1959
Nelson, Bruce David — Falmouth Foreside, Me.
A.B., Bowdoin, 1959
Nevel, William G. — Walden, N.Y.
A.B., Columbia, 1959
Newberg, Marc E. — Jamaica, N.Y.
A.B., Williams, 1959
Noble, John, III — Beirut, Lebanon
A.B., Harvard, 1959
Ortiz, Carmen I. — Santurce, Puerto Rico
A.B., Wellesley, 1959
Page, Robert B. — New York City
A.B., Amherst, 1959
Paris, George L. — Ridgway, Pa.
B.S., Carnegie Institute of Technology, 1959
Parker, James D. — Glen Ridge, N.J.
A.B., Cornell, 1959
Perlman, Richard D. — Brooklyn, N.Y.
A.B., Princeton, 1959
Pleasure, David E. — Middletown, N.Y.
A.B., Yale, 1959
Pohlman, Mark H. — Columbus, Ohio
A.B., Princeton, 1959
Poppa, Geraldine — Brooklyn, N.Y.
A.B., Vassar, 1959
Reifsnyder, David N. — Chester, N.Y.
A.B., Columbia, 1957
Rein, Joel M. — New York City
A.B., Columbia, 1959
Reynolds, James Christopher — Playce Del Rey, Calif.
A.B., Harvard, 1959
Rittenberg, Stephen M. — Englewood, N.J.
A.B., Columbia, 1957
Rodnan, Jeanette C. — New York City
A.B., Barnard, 1959
Rosenbaum, Michael T. — Larchmont, N.Y.
A.B., Yale, 1959
Rosenblatt, Martin G. — Montclair, N.J.
A.B., Princeton, 1958
Rudders, Richard A. — Brooklyn, N.Y.
A.B., Princeton, 1959
Ryder, Richard A. — Boonville, N.Y.
B.S., Rochester, 1956
Sachs, Frederick L. — Brooklyn, N.Y.
A.B., Princeton, 1959
Sade, Robert Miles — Newton, Mass.
A.B., Wesleyan, 1959
Saks, Joel W. — Springfield, Mass.
A.B., Wesleyan, 1959
Schaefer, Robert A. — Dobbs Ferry, N.Y.
A.B., Yale, 1959
Schecter, Alan N. — Brooklyn, N.Y.
A.B., Cornell, 1959
Scheiner, David L. — Margate, N.J.
A.B., Princeton, 1959

Scherzer, Alfred Leonard — New York City
M.A., Yale, 1957
Schneider, William — Mount Vernon, N.Y.
B.S., Tufts, 1959
Schonberg, Stephen S. — West Hempstead, N.Y.
A.B., Princeton, 1959
Schwartz, David T. — University Heights, Ohio
A.B., Harvard, 1959
Serber, Barbara Jo — New York City
A.B., Indiana, 1955
Ph.D., Columbia, 1955
Serxner, Jonathan L. — Brooklyn, N.Y.
A.B., Columbia, 1959
Shupack, Jerome Leonard — Brooklyn, N.Y.
A.B., Columbia, 1959
Silver, Lawrence R. — Cedarhurst, N.Y.
A.B., Yale, 1959
Simmonds, John S. — Arlington, Va.
A.B., Yale, 1959
Smith, Charles M. — Chillicothe, Ohio
A.B., Princeton, 1959
Snyder, Bernard M. — Harrisburg, Pa.
A.B., Franklin and Marshall, 1959
Steinfeld, Leonard I. — Bronx, N.Y.
A.B., Princeton, 1959
Steinman, Charles R. — Brooklyn, N.Y.
A.B., Princeton, 1959
Taylor, Marc J. — Mount Vernon, N.Y.
A.B., Amherst, 1958
Tiley, Frederick W. — Lehighton, Pa.
A.B., Princeton, 1959
Tull, Dade L. W. — Clemson, S.C.
A.B., Vassar, 1955
M.A., Wesleyan, 1957
Wainstein, Eli — Forty Fort, Pa.
A.B., Pennsylvania, 1959
Weksler, Babette — Teaneck, N.J.
A.B., Swarthmore, 1958
Wider, Jerry A. — Bay Shore, N.Y.
A.B., Princeton, 1959
Wolfinger, Howard Leiter, Jr. — Greencastle, Pa.
B.S., Haverford, 1959
Wood, Dean Scott — Watsonville, Calif.
A.B., Harvard, 1959
Zener, Julian C. — Durham, N.C.
A.B., Harvard, 1959
Zweiback, Eugene M. — Omaha, Neb.
A.B., Princeton, 1959

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STUDENTS ACCEPTED FOR THE CLASS OF 1964

Andrews, Willard E. — Palisade, N.J.
A.B., Haverford, 1960

Attkiss, Michael J. — Brooklyn, N.Y.
A.B., Harvard, 1960

Bach, Robert D. — Wellesley Hills, Mass.
A.B., Princeton, 1960

Baker, J. Dennis — Havana, Cuba
B.S., Haverford, 1960

Ballard, Bruce L. — Waverly Hills, Ky.
A.B., Yale, 1960

Barnum, Howard J., Jr. — Wilton, Conn.
A.B., Florida Southern, 1942

Bedell, David T. — Jacksonville, Fla.
A.B., Virginia, 1960

Benjamin, Thomas L. — Providence, R.I.
A.B., Amherst, 1959

Berio, Jose M., Jr. — Santurce, Puerto Rico
B.S., Puerto Rico, 1960

Berk, Paul D. — Brooklyn, N.Y.
A.B., Swarthmore, 1959

Biddle, C. Miller, IV — Moorestown, N.J.
A.B., Princeton, 1960

Blass, John P. — Stamford, Conn.
A.B., Harvard, 1958

Blaydow, A. Kenneth — Milton, Mass.
A.B., Princeton, 1958

Blume, Ralph S. — Yonkers, N.Y.
A.B., Amherst, 1960

Boothe, Robert L. — Westfield, N.J.
A.B., Princeton, 1960

Bowers, William E. — Wilmette, Ill.
A.B., Princeton, 1960

Bronshvag, Mike M. — Bronx, N.Y.
A.B., New York University, 1960

Brooks, John R. — Meriden, Conn.
A.B., Yale, 1960

Brower, Anne C. — Westfield, N.J.
A.B., Smith, 1960

Buker, Gerald D. — Vestal, N.Y.
B.S., Wheaton, 1960

Cervino, A. Lawrence — Greensburg, Pa.
A.B., Princeton, 1960

Chaitman, Edmund — Forest Hills, N.Y.
A.B., Hamilton, 1960

Chen, Peter S. — New York City
A.B., Harvard, 1960

Childers, Jack C., Jr. — Lexington, N.C.
A.B., Princeton, 1960

Conrad, Sue F. — Little Falls, N.Y.
A.B., Rochester, 1960

Crocker, Charles — Pebble Beach, Calif.
B.S., Stanford, 1960

Culver, James E., Jr. — Bridgeville, Del.
A.B., Dartmouth, 1960

David, David S. — Great Neck, N.Y.
A.B., Columbia, 1960

Decter, Neil — Rockaway Beach, N.Y.
A.B., Columbia, 1960

deFuria, Frank G. — Upper Darby, Pa.
A.B., Harvard, 1960

De La Chapelle, Alain A. — Larchmont, N.Y.
A.B., Columbia, 1960

De Muth, Simon H. — New City, N.Y.
A.B., Princeton, 1960

Dent, Thomas L. — Fayette City, Pa.
A.B., Yale, 1960

Egan, James H. — Bellmore, N.Y.
B.S., William and Mary, 1960

Forrest, David V. — Rockville Centre, N.Y.
A.B., Princeton, 1960

Franck, Walter A. — Scarsdale, N.Y.
A.B., Yale, 1960

Freyer, Stuart — Great Neck, N.Y.
A.B., Columbia, 1960

Friedberg, Michael A. — Brooklyn, N.Y.
A.B., Williams, 1960

Friend, William G. — Seattle, Wash.
A.B.,Princeton, 1960

Frueh, Bartley R. — Lakewood, Ohio
B.C.E., Cornell, 1960

Gelfand, Michael L. — New York City
A.B., Columbia, 1960

Gerstel, Howard M. — Hewlett, N.Y.
A.B., Columbia, 1960

Gilbert, David B. — Greeley, Colo.
B.S., Michigan, 1960

Gilbert, Marvin S. — Mt. Vernon, N.Y.
A.B., Columbia, 1960

Golwyn, Daniel H. — Philadelphia, Pa.
A.B., Kenyon, 1959

Gourrich, George E. — Los Angeles, Calif.
B.S., California at Los Angeles, 1947
M.A., California at Los Angeles, 1950

Gregg, Thomas F. — Cambridge, Mass.
A.B., Harvard, 1959

Gregory, John G. — Merion Station, Pa.
A.B., Princeton, 1960

Groder, Martin G. — Flushing, N.Y.
A.B., Columbia, 1960

Grollman, Evelyn F. — Dallas, Tex.
A.B., Sarah Lawrence, 1960

Hamilton, Lewis L. — Allison Park, Pa.
B.S., Yale, 1960

Hamilton, William G. — Portage, Wis.
B.S.E., Princeton, 1954

Hanger, Clay N. — Cleveland, Ohio
A.B., Princeton, 1957

Hart, Katherine — Denver, Colo.
A.B., Smith, 1960

Henriquez, Carlos L. — Yonkers, N.Y.
A.B., Columbia, 1960

Heroy, Ann C. — Sewickley, Pa.
A.B., Vassar, 1960

Humphreys, Elaine E. — Dorset, Vt.
A.B., Radcliffe, 1960

Humphries, Robert H. — Short Hills, N.J.
B.S., Wheaton, 1960

James, William A. — Humboldt, Tenn.
A.B., Princeton, 1960

Jamison, Jane A. — Chatham, N.J.
A.B., Cornell, 1960

Johnson, David D., II — Charleston, W.Va.
A.B., Harvard, 1960

Kaplan, Alfred I. — New York City
A.B., Columbia, 1960

Kilroy, Patricia A. — Bloomington, Ind.
B.S., Boston, 1958

Kistler, J. Philip — Tulsa, Okla.
A.B., Harvard, 1960

Langloh, Nikolaus D. New York City
A.B., Columbia, 1960
Lawrence, William H., Jr. San Francisco, Calif.
A.B., Princeton, 1960
Leventer, Leonard Merrick, N.Y.
A.B., Columbia, 1960
Levy, Jay A. Wilmington, Del.
A.B., Wesleyan, 1960
Lewis, Robert D. Pittsburgh, Pa.
A.B., Princeton, 1960
Lipton, Richard A. West Hempstead, N.Y.
A.B., Bethany, 1960
Lowenthal, Gilbert, Jr. Braddock Hts., Md.
A.B., Brown, 1960
McCarthy, Joseph G. Lowell, Mass.
A.B., Harvard, 1960
Marmar, Kenneth A. Framingham Centre, Mass.
A.B., Harvard, 1960
Mayer, Eugene S. So. Norwalk, Conn.
B.S., Tufts, 1960
Morgan, Frank B. Sacramento, Calif.
A.B., Stanford, 1960
Mulliken, John B. Minneapolis, Minn.
A.B., Princeton, 1960
Musgrave, Franklin S. Marietta, Ohio
B.S., Syracuse, 1958
M.B.A., California at Los Angeles, 1959
A.B., Marietta, 1960
Ogawa, Robert T. Oahu, Hawaii
A.B., Kenyon 1960
Parsons, Charles P. Ashland, Ky.
B.S., Cornell, 1960
Patt, Stephen L. Elkins Park, Pa.
A.B., Harvard, 1960
Pietropinto, Anthony P. New York City
A.B., New York University, 1960
Platnik, Bruce H. Jamaica, N.Y.
A.B., Columbia, 1960
Poliakoff, Claude S. Forest Hills, N.Y.
A.B., Columbia, 1960
Priestley, Joseph B., Jr. Des Moines, Iowa
A.B., Yale, 1960
Rappaport, Lawrence N. Great Neck, N.Y.
A.B., Harvard, 1960
Rechler, Matthew M. Brooklyn, N.Y.
A.B., Harvard, 1960
Reid, Watson D. Greenwich, Conn.
A.B., Yale, 1959
Reiss, Ian M. Brooklyn, N.Y.
A.B., Columbia, 1960
Reul, Charles G. Westfield, N.J.
A.B., Princeton, 1960
Ricketts, Robert T. Jackson, Tenn.
A.B., Vanderbilt, 1960
Robbins, Theodore B. Gloucester, Mass.
A.B., Harvard, 1960
Rogal, Philip J. Brooklyn, N.Y.
A.B., Princeton, 1960
Rosen, P. Peter New York City
A.B., Swarthmore, 1960
Salomon, Peter F. New York City
A.B., Harvard, 1960
Sananman, Michael L. Brooklyn, N.Y.
A.B., Swarthmore, 1960
Schall, Stewart A. Passaic, N.J.
A.B., Rutgers, 1960
Schreiber, Ronald Bronx, N.Y.
A.B., Columbia, 1960
Shoup, Guy W. Atherton, Calif.
A.B., Stanford, 1955
LL.B., Yale, 1960
Spencer, Norman A. Brooklyn, N.Y.
A.B., Amherst, 1960
Stein, Gary F. Brooklyn, N.Y.
A.B., Union, 1960
Stilley, J. William Homestead, Pa.
A.B., Princeton, 1960
Stivers, George S. Cincinnati, Ohio
B.S., Massachusetts Institute of Technology, 1960
Students, Ariana B. Red Bank, N.J.
A.B., Stanford, 1960
Sundahl, C. Gerald Bradford, Pa.
A.B., Princeton, 1960
Svahn, David S. West Nyack, N.Y.
B.S., Massachusetts Institute of Technology, 1960
Takekoshi, Akemi Pasadena, Calif.
A.B., Vassar, 1960
Taylor, Davida E. Berkeley, Calif.
A.B., College of the Pacific, 1960
Turvey, B. Edward, Jr. Dayton, Ohio
A.B., Oberlin, 1960
Vetter, William R. Flushing, N.Y.
A.B., Amherst, 1960
Wang, Stephen F. Brooklyn, N.Y.
A.B., Columbia, 1960
Webb, Charles A., Jr. Baltimore, Md.
A.B., Trinity, 1960
Willner, Jeanne R. New Hope, Pa.
B.S., Connecticut, 1960
Wilson, William R. Mahwah, N.J.
A.B., Yale, 1960
Wolk, Michael J. New York City
A.B., Colgate, 1960
Wood, Barry G. New York City
A.B., Columbia, 1960
Wright, Geoffrey B. Merrick, N.Y.
A.B., Harvard, 1960
Zamelis, Ansis Ithaca, N.Y.
Zucker, Preston New York City
A.B., Hamilton, 1960

CONDENSED ACADEMIC CALENDAR

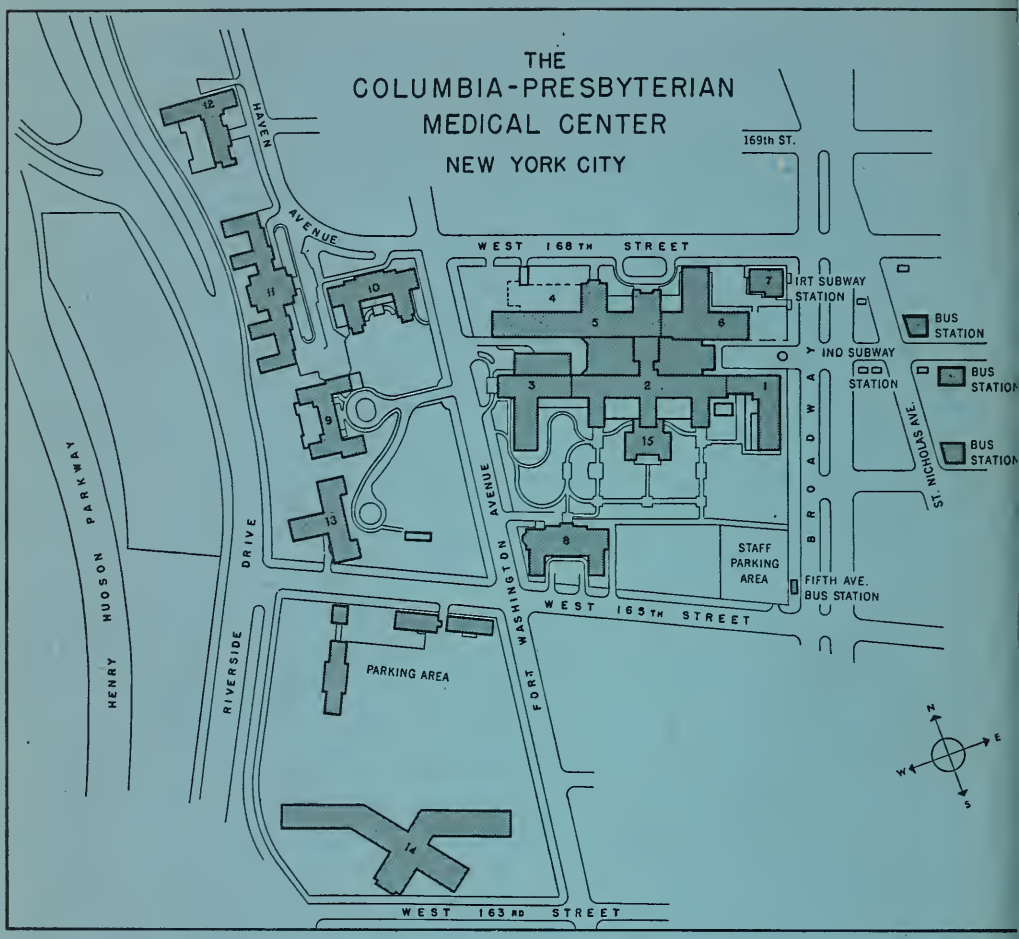
The complete Academic Calendar for the year 1960–1961 may be obtained from the Secretary of the University.

1960

May	19	Thursday, through May 20, Friday. Registration (including payment of comprehensive fee) for the Third- and Fourth-Year Classes.
June	**1**	**Wednesday. New academic year begins for the Fourth-Year Class.**
June	6	Monday. New academic year begins for the Third-Year Class.
August	1	Monday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
September	8	Thursday, through September 10, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
September	**12**	**Monday. Classes begin.**
October	6	Thursday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D., to be awarded in October.
November	8	Tuesday. Election Day. Holiday.
November	24	Thursday. Thanksgiving Day. Holiday.
December	1	Thursday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
December	**19**	**Monday, through**

1961

January	**2**	**Monday. Christmas holidays.**
February	1	Wednesday. Last day for filing application for Cutting and Ellis Fellowships.
February	22	Wednesday. Washington's Birthday. Holiday.
March	1	Wednesday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in June. The privilege of later application may be granted on payment of late fee.
March	**27**	**Monday, through April 1, Saturday. Easter holidays.**
April	1	Saturday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
May	22	Monday, through May 27, Saturday. Final examinations for the Third-Year Class.
May	30	Tuesday. Memorial Day. Holiday.
June	**6**	**Tuesday. Conferring of degrees.**



1. BABIES HOSPITAL
2. PRESBYTERIAN HOSPITAL
   N. Y. ORTHOPAEDIC HOSPITAL
   SLOANE HOSPITAL
   SQUIER UROLOGICAL CLINIC
3. HARKNESS PAVILION
4. POWER HOUSE
5. COLLEGE OF PHYSICIANS AND SURGEONS
6. VANDERBILT CLINIC
   SCHOOL OF DENTAL AND ORAL SURGERY
7. N. Y. CITY DEPT. OF HEALTH
   SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE
8. INSTITUTE OF OPHTHALMOLOGY
9. MAXWELL HALL
10. NEUROLOGICAL INSTITUTE
11. N. Y. STATE PSYCHIATRIC INSTITUTE
12. BARD HALL
13. HARKNESS MEMORIAL HALL
14. FRANCIS DELAFIELD HOSPITAL, N.Y.C.
15. PAULINE A. HARTFORD MEMORIAL CHAPEL

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COLUMBIA UNIVERSITY BULLETIN

SERIES SIXTY-ONE • NUMBER THIRTY-TWO • AUGUST 12, 1961

College of Physicians and Surgeons

M-COLL.-OFFICE

OF THE FACULTY OF MEDICINE

Columbia University.
College of P&S.
Announcement.

1961-1962

COLUMBIA-PRESBYTERIAN MEDICAL CENTER
630 WEST 168TH STREET • NEW YORK 32 • NEW YORK

COLUMBIA UNIVERSITY BULLETIN • SERIES 61 • NUMBER 32 • AUGUST 12, 1961

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View of Bard Hall from Riverside Drive

Columbia-Presbyterian Medical Center

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Walter S. Root
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Louis Casamajor	*Neurology*
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Bernis D. Moss, Jr., M.S. . . . . *Business Officer*
Eileen H. Daly . . . . . *Assistant to the Registrar of the University*

THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. The medical faculty is responsible for the educational programs in Medicine, Occupational and Physical Therapy, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The basic professional nursing program at Columbia prepares qualified young women to practice nursing effectively in hospitals, homes, and in the various types of health agencies. Nursing is interpreted as including health promotion through education, care of the sick and injured, and their restoration to a useful place in society. The program of study includes instruction in the basic sciences and nutrition; theory and supervised experience in the major clinical areas of medical, surgical, maternity, orthopedic, pediatric, psychiatric, and public health nursing. Completion of the program requires three academic years and two summer sessions, and leads to the award of the degree of Bachelor of Science from Columbia University. See the Nursing bulletin for further details.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Training in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors of the Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than

emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 196 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has eighty-eight ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 176-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergraduate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,773 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 325 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,338 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains eighty-eight research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 308 patients, including sixty in the Country Home at Far Rockaway.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 111 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 665 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of forty-two beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,136 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for undergraduate work in pediatrics and obstetrics. There are 511 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 459 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 582 beds, including sixty-two beds for children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In

Hospital." It has 190 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately 240,000 volumes of books and journals, some 5,000 pamphlets, and about 2,000 lantern slides on the history of medicine. More than 3,500 periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Dental and Oral Surgery, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The second and third floors are arranged to accommodate women students.

Rates for accommodations range from $318 to $525 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal, prepaid board plan; the present rate is $400 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The next entering class will register September 7–9, 1961. Application for admission is made for the next incoming class only, and requests for application forms may be addressed to the Dean one year in advance of matriculation. Every application must be accompanied by a check or money order for the amount of $15 for those entering in 1961 and thereafter. The fee helps to cover the cost of processing the application; it is therefore not returnable nor is it credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is perferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any

student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction. Students who may have in mind a combined program leading to the award of both the Ph.D and M.D. degrees should consult the chairman of the basic science department in which he plans to major and the Associate Dean of the Faculty of Medicine.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is $50 for any period which is not longer than an autumn or spring term. During the summer, between Commencement and registration in September, the fee is $25.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays. The periods set aside for registration in each term are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the comprehensive fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of $6.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

Comprehensive fee

For all students for one academic year, payable in two installments	$ 100.00

Tuition fee

For the full course in medicine for one academic year (or equivalent), payable in two installments	1,350.00

For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year	50.00

Application fees

For admission	15.00
For each special examination	10.00
For renewal of application for a degree (see below)	1.00

Late fees

For late registration	6.00
For late application, or late renewal of application, for a degree	5.00

Rebates

The comprehensive fee, the student health and hospital fee, application fees, special fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, a charge will be made for any unusual amount of breakage.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to a renewal for a fee of $1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with a microscope of satisfactory type. See page 57 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	Average	*Minimum*
Tuition and fees	$1,500	$1,500
Room	350	250
Board	700	650
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	$3,250	$2,850

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 55–57.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of $10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-seventh year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of the Director of Student Activities and the P&S Club.

A faculty board of advisers assists the students and the Director in the operation and

support of the club program. Every matriculated student in the School of Medicine is automatically a member and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

I. Recommended for advancement
II. Recommended for readmission to the same class
III. Recommended neither for advancement nor readmission
  A. Because of academic failure
  B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 24 and 25, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, and occupational therapy. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the School of Public Health and Administrative Medicine, the School of Nursing, and Courses in Physical and Occupational Therapy outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Area Institute. Area Institute Fellowships, ranging from $2,500 to $3,500, are available to graduates of, or second-year students in, the professional schools of Columbia University who desire to work toward a certificate in one of the regional institutes. A recipient of one of these fellowships will be required to give the major portion of his time to the area program of his choice. An applicant for one of these fellowships should discuss his program with the appropriate institute director before making application.

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about $4,200.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is usually $2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about $3,400.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, M.A., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The usual stipend is about $5,000.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about $1,270, the annual income of the fund.

Ellis. The George W. Ellis Fellowship is awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of the fellowship is about $5,000.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the chairman of the Department of Microbiology. The value of the fellowship is approximately $2,200.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the chairman of the Department of Biochemistry. The appointment is made from among

students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about $2,650, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the diseases of children in this country or abroad. The value of the fellowship is about $2,075, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about $2,800, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about $2,500 per year. It will be awarded next in 1965–1966.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the chairman of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about $3,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1932. The Class of 1932 College of Physicians and Surgeons Special Scholarship Fund was established on the twenty-fifth anniversary of their graduation, the income to provide annually for a scholarship room.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1936. The Class of 1936 P&S Scholarship Fund was established by the Class of 1936 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

DeAngelis. The Anthony M. DeAngelis Scholarship Fund, established by Dr. Anthony M. DeAngelis in 1958, is available to a student of the fourth-year class.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Detwiler. The Samuel R. Detwiler Memorial Scholarship was established in 1957 by his friends and colleagues, the income to be used annually for scholarship assistance.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Deven-

dorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Himmelstein. The Aaron Himmelstein Memorial Scholarship Fund was established by his colleagues and friends in 1960, the income to be used for annual scholarship assistance to undergraduate medical students.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John–Princeton. The St. John–Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Saphir. The Joseph F. Saphir Memorial Scholarship, established in 1960 by Elsa M. Saphir in memory of her husband, Class of 1902, is awarded annually.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vollmer. The Hermann Vollmer Scholarship Fund, established in his memory by his wife, is awarded annually to deserving and qualified candidates in medicine.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler,

Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is $200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the best thesis on puerperal fever. The value of the prize is about $125, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Chairman of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about $30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about $85, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology, to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about $75, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Psychiatry. The Department of Psychiatry Prize for best work in psychopathology by a second-year student is given each year by the Department of Psychiatry. The approximate amount of this award is $50.

Sciarra. The Helen M. Sciarra Prize in neurology is awarded annually to the fourth-year student who has done the best work in the third-year neurology elective. The value of the prize is about $100.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical

subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about $525, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about $290, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about $370. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

The wives of medical students will find many opportunities for employment at the Medical Center, and those who are interested should notify the Dean's Office.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally, it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who have a particular interest and competence in one of the basic science fields. Only members of the staff of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the selected basic science field is required. Additional requirements include passing a comprehensive examination, completion of a significant and original research project, submission of a dissertation, and passing an oral examination. Further information about the degree can be obtained from the departmental chairman or from the Dean's Office.

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who are prepared to benefit by the advanced instruction.

Short courses are available at the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hospital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange in their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

	First Year	HOURS
Anatomy 101FS	Microscopic anatomy	161
Anatomy 102ST	Systematic human anatomy	272
Anatomy 103FS and *Public Health 201*	Embryology—statistics—genetics	77
Anatomy 106S	The nervous system	140
Biochemistry 101F	Introductory biochemistry	190
Physiology 101TFo	Human physiology	179
Psychiatry 101FST	Introduction to human behavior	30
Pathology		44
	TOTAL	1,093

Second Year

		HOURS
Medicine 101T	Elementary physical diagnosis	99
Medicine 102S	Elementary clinical pathology	88
Medicine 103T	Introduction to medicine	4
Medicine 104T	Introduction to experimental medicine	8
Microbiology 101F	General microbiology	151
Microbiology 105F	Infection, immunity, etc.	52
Neurology 101T	Neurological examination	20
Pathology 101FS	General and special pathology	251
Pathology 102S	Neuropathology	36
Pharmacology 101ST	General and special pharmacology	132
Psychiatry 102S	Psychopathology	20
Public Health 101T	Parasitic diseases	55
Public Health 101F	Epidemiology; public health control	11
Surgery 101S	Introduction to surgery	12
Surgery 102T	Principles of surgery	66
	TOTAL	1,005

Third Year

Dermatology 203–204	34
Medicine 201–202, 203–204, 205–206	447
Neurology 207–208, 209–210	38
Obstetrics and Gynecology 201–202	56
Ophthalmology 201–202, 203–204	42
Orthopedic Surgery 201–202, 203–204	70
Otolaryngology 201–202, 203	40
Pediatrics 201–202, 207–208	208
Psychiatry 203–204	147
Public Health 203–204	76
Public Health 205	11
Public Health 206	8
Radiology 201–202, 206	39
Surgery 201–202, 204–205, 211–212	183
Electives	385
TOTAL	1,784

Fourth Year

Dermatology 205–206	28
Medicine 205–206, 207–208, 209–210, 221–222, 223–224, 225–226	465
Neurology 202	30
Obstetrics and Gynecology 203–204	280
Orthopedic Surgery 205–206	24
Pediatrics 203–204	140
Pharmacology 202	16
Psychiatry 205	15
Radiology 203–204	16
Surgery 209–210, 213–214, 217–218, 219–220	292
Urology 201–202	36
Electives	280
TOTAL	1,622

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*chairman*), H. O. Elftman, F. A. Mettler (*Neurology*), M. R. Murray (*Surgery*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, M. L. Moss, C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professor: E. B. Kaplan

Assistant Professors: C. A. Ely, G. D. Pappas, W. M. Rogers, S. C. Shen

Assistant Clinical Professor: R. M. Rankow (*Dental and Oral Surgery*)

Research Associate: T. Tallberg

Instructors: P. W. Brandt, I. L. Firschein, J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman, N. L. Trotter.

Assistants: E. J. Blanchette, C. R. Hackenbrock, J. M. Petras, F. T. Sanel, M. J. V. Smith

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Pappas, Shen, Smelser, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, Rogers, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. Interdepartmental course. 4 pts.

Lectures, demonstrations, correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106ST—The structure and function of the nervous system. First year. An interdepartmental course. 6 pts. Professors Carpenter and Noback (*Anatomy*), Rittenberg and Waelsch (*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

Lectures, demonstrations, and laboratory.

SUMMER SESSION, 1961

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Ely and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professor: E. M. Papper (*chairman*)
Associate Professors: B. R. Fink, L. S. Mark, G. G. Nahas, S. H. Ngai
Associate Professors of Clinical Anesthesiology: E. C. Hanks, H. Schwartz
Assistant Professors: L. Brand, R. M. Epstein, J. Henley, V. Lauderdale, F. Moya, R. W. Patterson, H. Rackow, E. Salanitre, C. Sanger, C. C. Wycoff
Assistant Professor of Pediatrics: L. S. James
Associates: J. H. Karis, R. Katz, R. J. Kitz, M. M. Kritchman, R. S. Matteo, S. M. Shnider
Research Associate: M. Verosky
Instructors: D. C. Brody, M. Finster, S. J. Leavitt, S. N. Steen, S. F. Sullivan, C. E. Wolf

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anesthesiology 201—Lectures. Series of four, one hour each. Third year. Professor Papper and staff.

Anesthesiology 204S—Seminars in anesthesiology including practical demonstrations of anesthetic methods. Four hours a week for five and one-half weeks. This is part of *Surgery 204–205*. Third year. Professor Papper and staff.

Anesthesiology 213S—Clinical clerkship. One week of practical anesthesia in the operating rooms of Presbyterian Hospital with a preceptor. This is part of *Surgery 213–214*. Fourth year. Professor Papper and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Anesthesiology 210—Practical anesthesiology in Presbyterian Hospital. Limited to three students. Third year. Six weeks or twelve weeks. Professor Papper and staff.

Anesthesiology 212—Research in anesthesiology. Limited to two students. Time to be arranged. Professors Papper and Nahas, and staff.

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*chairman*), D. Shemin, W. M. Sperry (*Psychiatry*), D. B. Sprinson, H. B. Waelsch (*Psychiatry*)

Associate Professors: R. Benesch, I. Clark (*Orthopedic Surgery*), S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: G. Acs (*Psychiatry*), G. Alexander (*Psychiatry*), M. A. Eisenberg, P. Feigelson (*Medicine*), H. B. Gillespie, I. Goodman (*Surgery*), E. Hirschberg (*Medicine*), P. Hoffman (*Medicine*), A. I. Krasna, A. Lajtha (*Psychiatry*), I. Mandl (*Obstetrics and Gynecology*), H. Meltzer (*Psychiatry*), H. Moser, T. D. Price (*Urology*), A. Rosenberg, H. Shapiro, H. S. Simms (*Pathology*), P. Srinivasan, B. Weiss (*Psychiatry*)

Assistant Professor of Medicine: A. Freedman

Associates: E. Borek, G. Cohen (*Psychiatry*), P. E. Hochstein (*Medicine*), H. C. Lawler (*Neurology*)

Associate in Medicine: G. B. Phillips

Research Associates: R. E. Benesch, G. Birnbaum, D. D. P. Clarke (*Psychiatry*), D. H. Clouet, (*Psychiatry*), J. R. Einstein, E. D. Gray, O. Greengard, K. B. Liedke, A. Neidle (*Psychiatry*), I. Radichevich, (*Medicine*), K. D. Roberts (*Obstetrics and Gynecology*), R. A. Sparks, J. H. Spencer, N. Z. Stanacev, I. Sucher, K. Tsushima, E. M. Volpert (*Medicine*), E. Wainfan, M. B. Wechsler, P. E. Zimmering (*Obstetrics and Gynecology*)

Instructor: H. Dougherty

Special Lecturer: M. Karshan

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)

Assistant Professor: L. L. Abell (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 211–212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215–216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Enzymes. 3 pts. Tu. Th. The staff.

Prerequisite: the permission of the department.

Mechanisms of enzyme action; systematic enzymology; enzymatic processes; organized biological structures.

Biochemistry 230—Chemistry and biochemistry of the carbohydrates. The staff. 3 pts. Not given in 1961–1962.

Biochemistry 232—Nucleic acids. 3 pts. The staff. Not given in 1961–1962.

Biochemistry 234—The proteins. 3 pts. The staff. Not given in 1961–1962.

Biochemistry 240 or R240—Introduction to x-ray crystallography. 3 pts. Professor Low. Lecture: Tu. and Th. Laboratory: three hours to be arranged.

Prerequisite: the instructor's permission.

Crystal symmetry; production and properties of x-rays; optical principles of x-ray diffraction; crystal-structure analysis; discussion of crystal-structure analyses of chemical and biochemical interest.

Biochemistry 301–302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

DERMATOLOGY

Professor: C. T. Nelson (*chairman*)
Associate Professor of Clinical Dermatology: B. M. Kesten
Associate Clinical Professors: L. P. Barker, J. L. Miller
Assistant Professor: M. Silva
Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, F. P. Lowenfish, C. F. Post, T. Rosenthal, M. H. Slatkin
Associates: B. J. Chester, W. Curth
Instructors: I. Abrahams, M. Brodey, B. Dobias, J. T. Hearin, E. W. Jewell, J. T. McCarthy, R. M. Montgomery
Assistants: H. C. Gore, S. L. Sanders, R. A. Walzer
Lecturer: A. L. Carrion
Special Lecturer: L. Schweich

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203–204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates. At Vanderbilt Clinic.

Dermatology 205–206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Drs. Chester, Gore, Hearin, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Eight hours per week for twelve weeks. 3 pts. Professor Silva.

Hours to be arranged.

Given in collaboration with *Microbiology 118T.*

Dermatology 207–208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219–220—Histopathology of the skin.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: S. E. Bradley (*chairman*)
Professors: A. Gellhorn, Y. Kneeland, Jr., G. A. Perera, J. V. Taggart
Professor of Biochemistry: K. Meyer
Clinical Professors: F. R. Bailey, H. Southworth
Associate Professors: A. P. Fishman, P. A. Marks
Associate Professors of Microbiology: C. Howe, C. Morgan
Associate Professors of Clinical Medicine: H. Aranow, C. A. Flood, A. R. Lamb, Jr., J. H. Laragh, S. C. Werner
Associate Clinical Professors: S. C. Fisk, S. W. Lambert, P. C. Lloyd, W. B. Sherman
Assistant Professors: C. L. Christian, N. P. Christy, A. Freedman (*Biochemistry*), H. O. Heinemann, A. I. Knowlton, E. F. Osserman, D. Schachter, D. F. Tapley, G. M. Turino, H. O. Wheeler
Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg, P. Hoffman
Assistant Professors of Medical Social Work: B. E. Judkins, E. R. Pritchard
Assistant Professors of Clinical Medicine: J. M. Baldwin, Jr., S. W. Cosgriff, F. E. Demartini, G. W. Melcher, K. L. Pines, C. R. Wise
Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, A. W. Grokoest, D. L. Larson, M. J. Lepore, T. B. Russell, H. B. Wilcox, Jr.
Associates: H. M. Anderson, G. P. Bradley, A. E. Brewer, J. Van B. Dean, H. H. Holmes, G. A. Hyman, R. A. Kritzler, E. Leifer, G. H. McCormack, Jr., R. B. McKittrick, E. Middleton, Jr., I. Mufson, R. P. Noble, G. B. Phillips (*Biochemistry*), R. J. Stock, C. J. Tyson, J. E. Ultmann
Associate in Biochemistry: P. E. Hochstein
Research Associates: M. Angers, K. J. Baker, A. Devi, R. Grinberg
Research Associates in Biochemistry: I. Radichevich, E. M. Volpert
Instructors: S. F. Alexander, C. Alston, A. T. Baker, G. J. Beck, E. H. Bergofsky, R. M. Carey, H. P. Colmore, N. J. Conan, Jr., C. Gerbi, G. C. Hennig, D. A. Holub, R. N. Lamont-Havers, K. A. McClane, W. M. Manger, J. A. L. Mathers, J. I. Meltzer, H. W. Neuberg, E. R. Pons, Jr., T. L. Tyson, E. A. Wheaton, Jr., R. T. Whitlock, J. A. Wood
Instructor in Medical Social Work: E. Shaw
Assistants: J. J. Barlow, J. W. Barry, J. T. Beatty, J. A. Coss, Jr., H. W. Doyle, S. Dvoskin, D. Estes, S. Fink, W. H. Franklin, P. K. Johnson, D. M. Kanter, M. M. Lipman, M. L. Marinovich, E. M. Reilly, A. I. Snyder, C. A. Vicens, B. M. Wright
Special Lecturer: D. W. Richards
Lecturers: D. M. Gomez, V. M. Ingram

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III
Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison
Associate in Biochemistry: T. Peters, Jr.
Instructors: E. C. Herman, Jr., J. C. Mithoefer, W. H. Mook, E. D. Rames, R. S. Sioussat

At Bellevue Hospital:

Samuel W. Lambert Professor: C. A. Ragan
Westchester Heart Association Professor of Cardiovascular Research: A. F. Cournand
Clinical Professor: K. J. Thomson
Associate Professors: W. A. Briscoe, H. M. Fritts, Jr., J. M. Jones, J. H. McClement
Associate Professors of Clinical Medicine: M. I. Ferrer, R. Harvey
Associate Clinical Professors: C. R. Gross, J. L. Leland, H. McL. Riggins
Assistant Clinical Professors: O. S. Baum, H. H. Coppersmith, W. R. Cunnick, A. Hoff, W. H. Stearns, D. L. Stone, P. Wermer
Associates: M. E. Campbell, J. B. Cromie, A. L. Davis, L. H. Hellstrom, H. M. Hicks, D. G. Simpson, C. H. Whitney
Associate in Biochemistry: A. M. Briscoe
Research Associates: M. S. Dunhill, E. R. Weibel
Instructors: S. C. Alexander, E. Alpert, R. F. Alsop, E. Bauman, H. J. Brown, H. S. Collins, R. J. Conroy, J. R. Edsall, B. B. Eichler, H. Fong, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, A. Mintzer, D. J. O'Leary, H. Perrone, A. W. Phillips, C. R. Ream, H. G. Shaffeld, W. J. Sheils, M. B. Smith, J. M. Sprague, A. M. Tunick, J. H. Walker
Assistants: H. S. Ballard, P. W. Brickner, L. L. Davis, J. C. DiJohn, Y. Enson, L. Fishel, D. L. Hartman, S. N. Heller
Lecturers: M. Kuschner, W. E. Loring

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professor: A. R. Wertheim
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professor of Biochemistry: L. L. Abell
Assistant Clinical Professors: H. Colcher, A. W. Feinberg, J. Wolf
Research Associate in Biochemistry: J. Blum
Instructors: J. G. Edreira, L. A. Scarrone
Assistants: C. M. Dennehy, E. J. Howard, J. S. Idriss, E. Schmatolla
Special Lecturer: H. Lax

At Montefiore Hospital:

Clinical Professor: L. Leiter
Associate Clinical Professor: L. E. Siltzbach
Assistant Clinical Professors: H. Gross, A. Jezer, S. Melamed, I. L. Rubin, J. B. Schwedel, H. Spencer, I. D. Stein, B. Weingarten
Instructor: J. Frieden
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. J. W. Escher, M. Friedenson, E. Goldberger, B. E. Jacob-

son, G. C. Leiner, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, D. Young

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professors: C. K. Friedberg, M. Mendlowitz, S. Silver, L. R. Wasserman
Assistant Clinical Professors: W. M. Hitzig, H. Horn, H. D. Janowitz, T. F. Yu
Associates: M. E. Bader, R. A. Bader, I. E. Gerber, F. H. King, M. F. Levitt, F. Schaffner
Instructors: S. K. Elster, L. A. Kuhn
Lecturers: S. Dack, H. L. Jaffe

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At St. Luke's Hospital:

Associate Clinical Professor: T. B. Van Itallie
Assistant Clinical Professors: J. G. Hilton, W. J. Pyles
Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling
Instructors: E. Andreae, S. S. Bergen, Jr., N. E. Capeci, R. Case, G. Dermksian, J. A. Feltman, M. F. Goodbody, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Marks and associates.

This course places particular emphasis on morphology, genetics, biochemistry, and physiology in considering problems in clinical medicine, and provides instruction in certain specific laboratory techniques for examination of blood, urine, and other clinical material.

Medicine 103T—Introduction to experimental medicine. Two hours a week for two weeks. Second year. No pts. Professor Bradley.

Medicine 104T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Bradley.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Christy and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210.* Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems, with a review of the pertinent pharmacology. See *Pharmacology 202.*

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Ragan and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Ragan and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

A. *Diabetes.* M. W. F. Floor 2. Limited to six students each morning. Professor Pines.
B. *Thyroid.* F. Floor 10. Limited to six students. Professors Werner and Aranow.
C. *Nephritis and hypertension.* Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

D. *Allergy.* M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
E. *Cardiac.* F. Floor 10. Professor M. I. Ferrer.
F. *Arthritis.* W. F. Floor 10. Limited to four students daily. Professor Ragan.
G. *Combined endocrine.* Tu. Floor 3. Limited to six students. Professor Werner and associates.
H. *Gastrointestinal.* M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230—Differential diagnosis. Fourth year. Professor Kneeland.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231–232—Research in medicine. Under the direction of Professor Bradley.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235–236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

MICROBIOLOGY

John E. Borne Professor: H. M. Rose (*chairman*)
Professors: E. A. Kabat (*Neurology*), B. C. Seegal
Professor of Bacteriology: C. W. Jungeblut
Associate Professors: S. M. Beiser, B. F. Erlanger, G. C. Godman, C. Howe (*Medicine*), C. Morgan (*Medicine*), S. W. Tanenbaum
Associate Professor of Surgery: P. S. Russell
Assistant Professors: E. W. Bassett, S. A. Ellison, K. C. Hsu, A. W. Knox, E. Y. L. Lasfargues, G. Schiffman (*Neurology*)
Associates: W. Cohen, P. V. Divekar, D. Locatcher-Khorazo (*Ophthalmology*)
Research Associates: A. D. Deitch, I. M. Mountain
Assistant: P. E. Brenneisen

At Mary Imogene Bassett Hospital:
Associate: H. J. Spencer

At Bellevue Hospital:
Assistant Professor: C. L. Fox, Jr. (*Surgery*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.
This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Six hours lecture and demonstration. Second year. 3 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. See *Dermatology 101T*.

Microbiology 251FST—Research in problems of microbiology, immunology, and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (*chairman*)
Professor of Clinical Neurological Surgery: J. E. Scarff
Clinical Professor: F. Cramer
Associate Professors: J. B. Campbell, D. P. Purpura
Associate Professor of Clinical Neurological Surgery: L. A. Mount
Assistant Professors of Clinical Neurological Surgery: J. W. Correll, E. B. Schlesinger
Associates: T. J. Bridges, E. M. Housepian, J. N. Potanos
Research Associates: W. V. Morgan, K. C. Nielsen

At Bronx Veterans Administration Hospital:
Clinical Professor: E. Krueger

NEUROLOGY

Professors: H. H. Merritt (*chairman*), H. Grundfest
Professor of Neuropathology: A. Wolf
Professor of Anatomy: F. A. Mettler
Professor of Biochemistry: D. Nachmansohn
Professor of Microbiology: E. A. Kabat
Professors of Clinical Neurology: S. Carter, C. T. Vicale
Associate Professors: P. F. A. Hoefer, M. V. L. Bennett
Associate Professors of Clinical Neurology: D. Sciarra, M. D. Yahr
Associate Professor of Biochemistry: I. B. Wilson
Associate Professor of Neuropathology: D. Cowen
Associate Clinical Professor: J. Moldaver
Assistant Professors: W-D. Dettbarn, S. Ehrenpreis, R. A. Fishman, E. S. Goldensohn, J. F. Hammill, F. C. G. Hoskin, N. L. Low (*Pediatrics*), L. P. Rowland, E. H. Schoffeniels
Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, A. P. Gold (*Pediatrics*), E. Herz, R. J. Masselink
Assistant Clinical Professors: M. Silbermann, S. F. Thomas, H. G. Weitzen
Assistant Professor of Microbiology: G. Schiffman
Associates: S. M. Cohen, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, J. L. O'Brien, R. Pietri, F. T. Zimmerman
Associate in Biochemistry: H. C. Lawler
Associate in Psychiatry: L. R. Hewson
Research Associates: E. Amatniek, J. Dayan, J. H. Evans, S. Ginsburg, H. Hartford, G. Katz, L. T. Kremzner, R. F. Mathewson, J. A. Reilly, J. P. Reuben, R. L. Thompson, L. Zablow
Research Associate in Psychiatry: S. M. Ferguson
Instructors: R. A. de Napoli, G. F. Osler, M. R. Seiden
Assistants: E. Bartels, W. McL. Clark, M. H. Charlton, L. J. Cote, E. B. Decker, J. Hardie, D. H. Harter, F. P. Iorio, R. W. Richter, D. L. Schotland

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.
Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick
Assistant Clinical Professors: C. B. Booth, S. Solomon
Associates: E. L. Demuth, R. B. Miller, J. H. Scharf
Instructors: D. Fine, J. McBeath
Assistants: M. L. Boczko, D. Eisenberg, S. Losin, A. P. Ruskin

At Mt. Sinai Hospital:

Clinical Professor: M. Bender
Lecturer: H. Strauss

At Rockland State Hospital:

Assistant: J. C. Saunders

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, ana-

tomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for ten weeks. Second year. Professors Merritt and Vicale.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicale.

Neurology 207–208—Neurology: examination of the patient and interpretation of findings. Ten afternoon sessions of three hours each, for a period of two and a half weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209–210—Neurology: the diseases of the nervous system. Lectures and demonstrations for eight sessions of one hour each. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241–242—Ward clinical clerkships. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

Professor Elizabeth S. Kelly

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*chairman*)

Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo

Associate Professors: A. A. Plentl, A. L. Southam

Associate Professor of Biochemistry: S. Lieberman

Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer, G. J. Vosburgh

Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell, S. W. Williamson

Assistant Professors: K. Adamsons, Jr., E. A. Friedman, O. J. Miller, R. L. Vande Wiele

Assistant Professor of Biochemistry: I. Mandl

Assistant Professor of Pathology: N. Janovski

Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, J. B. Rearden, L. B. Shettles, H. Speert, A. J. B. Tillman

Assistant Clinical Professors: R. E. Hall, J. R. Montgomery, D. B. Moore, H. M. M. Tovell

Associates: A. N. Fenton, V. J. Freda, M. D. Laird

Research Associates: S. Bader, E. Bolte, E. Gurpide, H. Guthwin, W. G. Kelly, M. E. Long, L. L. Phillips

Research Associates in Biochemistry: K. D. Roberts, P. E. Zimmering

Instructors: D. J. Grandin, W. D. Todd

Assistants: G. G. Herman, R. L. O'Connell, T. J. Parks, D. Reisfield

Special Lecturer: V. G. Damon

Lecturer: C. Tietze

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 102T. Ten hours lecture. Second year.

General clinical lectures which are designed as an introduction to obstetrics and gynecology. Presentation of basic principles in the physiology of human reproduction in relation to the clinical manifestations of ovulation, fertilization, and pregnancy.

Obstetrics and Gynecology 201–202—Theory and practice of obstetrics and gynecology. Forty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203–204—Fourth year: practical work in obstetrics and gynecology.

The practical work in the obstetrics and gynecology class is given to the fourth-year class in six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Edward S. Harkness Professor: A. G. De Voe (*chairman*)
Professor: S. P. Halbert
Professor of Anatomy: G. K. Smelser
Professor of Biochemistry: Z. Dische
Professor of Clinical Ophthalmology: G. M. Bruce
Clinical Professors: A. B. Reese, M. C. Wheeler
Associate Professor of Physiology: C. V. Harding, Jr.
Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)
Associate Clinical Professors: C. A. Perera, J. A. C. Wadsworth
Assistant Professor: V. Weimar
Assistant Professors of Clinical Ophthalmology: G. Clark, R. M. Day, P. Knapp, G. R. Merriam, Jr.
Assistant Clinical Professors: R. N. Berke, F. D. Carroll, J. V. Flack
Associates: H. D. H. Brown, A. de Roetth, Jr., A. W. Forrest, I. S. Jones, F. Payne, E. F. Regan

Associate in Microbiology: D. Locatcher-Khorazo
Research Associates: V. Ozanics, M. C. Rittler
Instructors: E. G. Bethke, C. J. Campbell, A. Donn, R. M. Ellsworth, I. Loewenfeld
Assistants: R. C. Collins, F. H. Farrant, F. A. L'Esperance
Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201–202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203–204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*chairman*)
Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin
Clinical Professor: L. A. Lantzounis
Associate Professor: C. A. L. Bassett
Associate Professor of Biochemistry: I. Clark
Associate Professors of Clinical Orthopedic Surgery: F. S. Craig, C. T. Ryder
Associate Clinical Professors: R. E. Carroll, M. B. Watkins
Assistant Professors of Clinical Orthopedic Surgery: G. B. Ambrose, A. Garcia, S. R. Gaston, C. S. Neer II
Assistant Clinical Professors: E. C. Bragg, D. K. McElroy, B. B. Stimson.
Associate: J. N. Worcester
Instructors: D. L. Andrews, A. Della Pietra

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201–202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield and staff.

Orthopedic Surgery 203–204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205–206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207–208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery presents a series of lectures in connection with *Surgery 102T*.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*chairman*)
Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley
Associate Professor of Clinical Otolaryngology: J. Waltner
Assistant Professor of Clinical Otolaryngology: M. Basek
Assistant Clinical Professors: R. M. Hui, B. Marquit
Associate: E. B. Bilchick
Research Associate: G. Jones
Instructors: P. Lindenberg, S. Whitfield
Assistants: L. Savetsky, M. H. Schvey, D. Zenker
Lecturer: S. Kastein

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman
Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201–202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, and Waltner, Dr. Whitfield, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Conley, Fowler, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225–226—Reseach in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226–227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Whitfield, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: D. G. McKay (*chairman*)
Professors: D. H. Andersen (*Pediatrics*), J. Furth
Professor of Neuropathology: A. Wolf
Professor of Surgical Pathology: R. Lattes
Associate Professors: W. A. Blanc, C. Z. Garber, D. Spiro
Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)
Associate Professor of Surgical Pathology: N. Lane
Assistant Professors: H. A. Azar, D. W. Benninghoff, D. E. Brown, N. Janovski (*Obstetrics and Gynecology*), A. D. Johnston, S. Opler, S. S. Simbonis, H. C. Stoerk, M. E. Tract, J. L. Tullis, A. Volkman
Assistant Professor of Biochemistry: H. S. Simms

Assistant Professors of Neuropathology: S. Donahue, G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*), J. H. Sung
Assistant Professor of Surgical Pathology: L. Ozzello
Associates: B. Berg, J. G. Gorman, A. D. Nash, M. R. Pachter, R. W. Snyder, J. Wiener
Associate in Neuropathology: L. M. Geller
Research Associates: S. Fiala, R. M. Goodman, H. Kaunitz
Instructors: I. Almenoff, D. J. MacPherson, A. D. Nash, K. Yannopoulis
Instructors of Neuropathology: D. Green, E. A. Mackey, J. P. Myers, S. A. Schneck, E. M. Stadlaw
Instructor in Surgical Pathology: H. F. Luddecke
Assistants: M. Delmer, J. Fink, H. P. Gaetz, L. Glasser, E. L. Howes, Jr., E. J. Kasdon, H. L. Levy, J. S. Magidson, W. E. Martin, K. H. Perzin, W. F. Pomputius, J. Relland, C. Rutgers, H. J. Schriever, M. Tannenbaum, L. J. Tremblay
Assistants in Surgical Pathology: V. Cankar, J. J. DiRe, J. I. Joseph, R. Lev
Lecturer in Medical Illustrating: A. Feinberg

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn
Instructor: C. A. Ashley

At Goldwater Memorial Hospital:

Assistant Professor: R. L. Hirsch

At Montefiore Hospital:

Professor: H. M. Zimmerman
Associate Professor: T. H. Spaet
Associate: P. Lalezari
Instructor: L. Allen

At Mt. Sinai Hospital

Professor: H. Popper
Assistant Professor: L. Strauss
Research Associate in Neuropathology: M. B. Bornstein
Instructor: E. Rubin
Assistants: H. H. Baruch, S. Goldfarb, D. Koffler
Special Lecturer: S. Otani

At Roosevelt Hospital:

Assistant Professor: R. Garret
Instructor: M. Wolff
Instructor in Oral Pathology: M. N. Blake (*Dental and Oral Surgery*)

At St. Luke's Hospital

Assistant Professors: C. F. Begg, S. R. Gambino

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. First and second years. 14 pts. The first portion of this course is given during May, and the rest is

given in the first and second trimesters of the following year. Professors McKay, Spiro, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251–252—Research in pathology. Credit to be arranged.
Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: E. C. Curnen, Jr. (*chairman*)
Professor: H. E. Alexander
Professor of Pathology: D. H. Andersen
Professor of Clinical Pediatrics: S. Blumenthal
Associate Professors: M. M. Grumbach, W. A. Silverman, R. W. Winters
Associate Professor of Clinical Pediatrics: J. A. Wolff
Associate Clinical Professors: H. S. Altman, J. M. Brush, C. L. Wood
Assistant Professors: D. S. Damrosch, S. P. Griffiths, R. C. Harris, L. S. James (*Anesthesiology*), A. G. Jameson, G. W. Mellin, K. Sprunt
Assistant Professor of Neurology: N. L. Low
Assistant Professor of Clinical Neurology: A. P. Gold
Assistant Clinical Professors: W. A. Bauman, C. P. Katsampes, R. E. Moloshok, M. Singer
Associates: R. W. Culbert, C. R. Denning, E. F. Downs, W. R. Kessler, R. M. Mickey, P. R. Scaglione
Research Associate: G. Leidy
Instructors: R. G. Ames, H. Anfanger, H. I. Cohen, M. J. Gates, H. Grossman, S. L. Kaplan, J. H. Maroney, S. A. Mayer, R. B. Mellins, A. Morishima, D. R. Reed, M. R. Richards, M. H. Samuels, J. G. Shiller, P. S. Strong, E. Ufford, D. A. Wilcox, L. F. J. Wilking, Jr., A. G. Wilson
Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., W. M. Chemris, S. J. Cohen, J. A. Costa, R. U. Donovan, L. G. M. Fox, B. German, T. B. Givan, Jr., J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Homan, P. Hudson, H. S. Hurwitz, M. H. Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, D. J. Melia, W. L. Mitchell, T. J. Moore, H. E. Poch, M. H. Rachelson, R. C. Richards, A. P. Rosen, M. H. Siegler, A. L. Sitarz, W. H. Smith, W. R. Stankewick, D. Stiles, J. C. Taylor, R. West, D. L. Wethers, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Clinical Professor: T. C. Goodwin
Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes
Assistant Clinical Professor: A. L. Forman
Instructor: D. Gribetz, W. Henley, L. Steinfeld

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201–202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203–204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Mellin and staff.

At Babies Hospital.

Students and hospital residents work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207–208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*chairman*)
Professor: S-C. Wang
Associate Professors: F. G. Hofmann, W. H. Sawyer
Assistant Professor: H. J. Bartelstone
Associate: H-H. Wang
Instructor: A. M. Perks
Lecturers: R. P. Bircher, J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101FS—General and special pharmacology. One hour lecture or conference, first trimester; four hours lecture or conference and six hours laboratory, second trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine 209–210.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229–230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Simon Baruch Professor: R. C. Darling (*chairman*)
Associate Clinical Professor: M. Hoberman
Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch
Associate Professor and Director of Training for Occupational Therapists: M. L. Franciscus
Associate Professor and Director of Training for Physical Therapists: M. E. Callahan
Assistant Professor and Associate Director of Training for Occupational Therapists: M. E. Schnebly
Assistant Professor and Associate Director of Training for Physical Therapists: R. Dickinson
Associates in Occupational Therapy: D. H. Ericson, G. S. Fidler, I. P. Robinault
Associate in Physical Therapy: L. H. Cairns
Instructors in Occupational Therapy: A. A. Deutsch, A. R. Trei, D. Weiser, T. L. Wellerson
Instructors in Physical Therapy: S. Brunnstrom, S. B. Feitelberg, B. Talmud
Assistants: M. Kellogg, C. M. Rhodes
Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Brooklyn Veterans Administration Hospital:

Instructor: L-C. Y. Chen

At Mt. Sinai Hospital:

Assistant Clinical Professor: L. H. Wisham

At Manhattan Veterans Administration Hospital:

Instructor: L. T. Pai

At St. Luke's Hospital:

Assistant Clinical Professor: S-J. Yue

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year. Professor Darling and staff.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. J. Gregersen
Professors: W. L. Nastuk, W. S. Root (*acting chairman*)
Westchester Heart Association Professor of Cardiovascular Research: A. Cournand (*Medicine*)
Adjunct Professor: G. Wakerlin
Associate Professors: L. T. Cizek, C. V. Harding, Jr. (*Ophthalmology*), W. R. Loewenstein, W. W. Walcott
Assistant Professors: S. Chien, R. J. Dellenback, R. Emmers, E. C. Gerst, M. Nocenti
Research Associates: P. Belton, K. Goto, N. Ishiko, S. J. Socolar, H. Lamport (*Urology*), M. J. Smith
Instructors: M. Blank, C. Fell, S. Usami
Assistants: H. S. Kessler, M. I. Morad

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.
Tu. Th. 3–5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, method of measuring cardiac output, blood volume, etc.

Physiology 251–252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

Dr. Ray E. Trussell, School of Public Health

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Biostatistics:

Professor: J. W. Fertig
Adjunct Associate Professor: L. R. Elveback
Assistant Professors: A. P. Berger, R. Z. Gold
Associate: P. B. Michelsen
Research Associate: N. W. Chilton
Instructor: K. M. El-Kashlan

Community Psychiatry:

Associate Clinical Professor of Psychiatry: V. W. Bernard
Adjunct Associate Professor of Administrative Medicine: M. E. Perkins

Assistant Professor of Administrative Medicine: M. L. Earl (*Psychiatric Social Work*)
Instructor in Psychiatry: D. S. Sanders

Epidemiology:

Professor: E. G. Clark
Adjunct Professor: J. P. Fox
Associate Professors: G. L. Saiger, M. D. Schweitzer
Associate Clinical Professor of Psychiatry: E. M. Gruenberg
Assistant Professors: F. R. Gearing, A. C. Gelman
Adjunct Assistant Professors: W. D. M. Harris, R. F. Sikes
Assistants: H. M. Gold, A. B. Ritterband

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*chairman*)
Adjunct Professor of Medical Sociology: E. A. Suchman
Associate Professors of Administrative Medicine: C. C. Clay, J. Elinson, F. W. van Dyke
Adjunct Associate Professors of Administrative Medicine: O. W. Anderson, M. Cherkasky, E. Hayt, J. M. Pisani, C. G. Roswell, R. P. Sloan, D. B. Straus
Adjunct Associate Professor of Hospital Administration: B. C. MacLean
Assistant Professors of Administrative Medicine: H. Baumgarten, Jr., V. M. Brown, M. C. Maloney, B. Mintz, M. A. Morehead
Adjunct Assistant Professors of Administrative Medicine: E. M. Bluestone, C. F. Muller, G. A. Silver, A. S. Yerby
Research Associates in Administrative Medicine: J. E. Bryan, R. A. Ferrer, T. J. Herlihy, J. J. Williams
Assistants in Administrative Medicine: J. L. Colombotos, J. Ehrlich, M. A. E. Ericson, E. G. High, R. Loewenstein, A. F. Popoli, M. J. Robertson, R. K. Schiecke, S. M. Smythe, C-J. Yang
Administrative Assistant: L. Gerold

Nutrition:

Robert R. Williams Professor of Nutrition: W. H. Sebrell, Jr.
Professor: E. L. Severinghaus
Adjunct Professor: N. S. Scrimshaw
Associate Professor: O. A. Roels
Research Associates: S. A. Hashim, L. Pothier
Instructor: M. E. R. Bal
Assistant: M. E. Trout

Occupational Medicine:

Professor: L. J. Goldwater
Associate Professor: M. B. Jacobs
Adjunct Associate Professor: I. R. Tabershaw
Adjunct Assistant Professor: M. Kleinfeld
Research Associate: A. C. Ladd
Instructor: H. Gilbert

Public Health Education:

Professor: G. Rosen
Adjunct Assistant Professor: I. S. Shapiro

Public Health Practice:

Adjunct Professor: H. E. Hilleboe
Associate Professor: M. W. Barnard
Adjunct Associate Professors: W. A. Brumfield, M. S. Ingalls, G. James
Adjunct Associate Professor of Dental Public Health Practice: A. Bushel
Assistant Professor: A. J. Beckmann
Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown
Associate Professor of Medical Entomology: R. W. Williams
Associate Professor of Parasitology: K. L. Hussey
Adjunct Assistant Professor: H. B. Shookhoff
Research Associate in Parasitology: M. C. Dunn
Instructors: K. G. Dwork, I. D. Guicherit, M. M. Sterman
Assistant: C. R. Demarest

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, J. J. Bourke, J. N. Bowden, P. R. Bozzo, E. R. Browneller, G. Bugbee, J. C. Butler, H. R. Cohen, J. D. Colman, P. M. Densen, D. G. Dickson, B. G. Dinin, W. R. Donovan, D. J. Doran, C. L. Erhardt, P. R. Fisher, R. T. Fisher, W. H. Fitzpatrick, S. Frant, C. N. Frey, H. C. F. Gifford, M. Goldberg, J. J. Goldman, R. S. Goodhart, I. Gottsegen, G. W. Graham, E. V. Grant, J. Hayt, H. H. Hughes, H. O. Humbert, M. A. Jacobs, N. H. Jolliffe, J. W. Kauffman, R. N. Kerst, J. H. Kinnaman, A. M. Kleinman, S. G. Kohl, B. A. Kornblith, D. L. Kurtz, G. W. Larimore, S. S. Lifson, J. Masur, R. J. Marcotte, B. F. Mattison, J. M. May, H. V. Maybee, C. M. Metzger, E. A. Mosso, J. J. Nelan, T. F. Nevins, Jr., B. L. Oser, B. B. Palmer, R. L. Perkins, M. J. Plishner, M. Radom, I. N. Rattner, J. W. H. Rehn, P. Rogatz, F. B. Rogers, A. J. J. Rourke, L. Schneider, H. Schoenfeld, M. E. Segal, S. Shapiro, J. E. Silson, J. E. Snyder, W. C. Spring, Jr., M. Steinberg, D. W. Stewart, J. V. Terenzio, A. W. Thomas, D. K. Tuller, M. S. Ulan, S. B. Weinberg, L. Weiner, E. Wellin, B. Werne, G. M. Wilkening, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 103FS—Statistics. A part of *Anatomy 103FS.* Three hours a week for five weeks. Professor Fertig.

Public Health 101F—An introduction to preventive medicine and public health. One hour a week for eleven weeks. Second year. Professor Brown.

Public Health 101T—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203–204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Professor Goldwater and staff.

Public Health 205—Forensic medicine and medical jurisprudence. One hour a week for eleven weeks. Lectures. Third year. Staff.

Public Health 206—Special topics in public health. One hour a week for eight weeks. Third year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, etc. Students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned. A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

An elective in medicine in the tropics is available to fourth-year students who serve in hospitals in Liberia and Surinam.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*chairman*), W. S. Langford

Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz, P. Polatin

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Clinical Professors: N. Ackerman, H. Bruch, G. Goldman, H. R. Klein

Associate Professors of Medical Psychology: A. Carr, W. N. Thetford

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: V. Bernard, E. M. Gruenberg (*Epidemiology*), G. A. Jervis, A. Karush, K. Kelley, L. Ovesey

Assistant Professors: S. H. Frazier, L. M. Kopeloff

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: G. Acs, G. Alexander, A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: J. Cattell, D. Dunton, B. Easser, M. Farnham, L. Gidro-Frank, M. Glusman, H. L. Hall, J. P. Lambert, R. MacKinnon, S. Malitz, L. Moses, R. Moulton, J. D. Rainer, J. Schachter, A. Schick, J. Weber

Associates: G. Baker, A. B. Ballard, J. Cedarquist, L. Cobliner, M. Cohen, J. A. Cook, A. Cooper, E. B. Davis, Z. DeFries, H. D. DeWitt, O. Frankel, W. Gaylin, R. Gilder, Jr., S. Goodman, L. R. Hewson (*Neurology*), S. Karlen, J. Lubart, A. M. Mesnikoff, M. Naftalin, B. Pasquarelli, A. Polatin, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, W. A. Schonfeld, D. Shapiro, J. Sheps, L. R. Sillman, C. W. Socarides, H. Spiegel, M. O. Strahl, R. Taylor, W. R. Watson, E. Welsch, B. Wilkens, W. Winikus

Associate in Biochemistry: G. Cohen

Research Associates: G. B. Baroff, M. Berger, E. I. Burdock, B. Casselman, E. A. Davidson, B. P. Dohrenwend, A. Falek, S. M. Ferguson (*Neurology*), M. Fisch, G. Gold, M. Gold, L. F. Jarvik, W. C. Roehrig, J. Rutschmann, K. Salzinger (*Medical Psychology*), K. Sterling, S. Sutton

Research Associates in Biochemistry: D. D. P. Clarke, D. H. Clouet, A. Neidle

Instructors: K. Z. Altshuler, M. J. Aronson, B. August, M. Barad, S. L. Bennett, S. Berl, J. P. Briggs, R. J. Campbell, H. Chartock, W. C. Clark (*Medical Psychology*), L. Coleman, D. J. Dillon, H. Diener, D. B. Douglas, H. B. Esecover, R. W. Evans, S. Feder, R. R. Fieve, E. Forster, S. G. Gaylin, L. J. Gilbert, R. J. Glavin, V. Goldin, L. A. Hamilton, H. Hendin, H. C. Hendin, W. Hochstetter, E. Huff, D. Jaffe, L. K. Kaplan, H. J. Kleinschmidt, D. S. Kornfeld, P. Laderman, N. D. Lazar, L. MacDonald, T. Meltzer, A. Messer, J. S. Montgomery, L. M. Moss, J. O'Connor, J. F. Oliven, H. Potter, K. F. Prescott, R. A. Raskin, T. C. Rodgers, J. H. Ryan, D. Sanders (*Public Health and Administrative Medicine*), B. D. Schoenberg, R. Shapiro, R. Silbert, D. E. Sobel, C. D. Tait, V. Teichner, L. C. Thum, W. F. Weber, J. H. Weissberg, N. Wisebord

Assistants: S. J. Applebaum, C. P. Bandfield, S. Budner, A. R. Kaplan, N. Kiremitci, D. Sank, J. S. Schachter

Lecturers: H. Brill, H. Davidson, R. C. Hunt, A. Kardiner, S. R. Lesser, D. Levy, W. Malamud, J. A. P. Millet, F. J. O'Neill, S. Rado, N. Stein, A. B. Szalita, V. N. Wilking

Special Lecturer: G. E. Daniels

Administrative Assistants: M. Neubart, G. Williams

At Mary Imogene Bassett Hospital:

Instructor: H. Gurian

At Bronx V.A. Hospital:

Associate Clinical Professor: B. L. Pacella
Associates: W. Brown, J. E. Pisetsky
Instructors: A. M. Gaulocher, A. P. Leuzzi

At Creedmoor State Hospital:

Clinical Professor: L. Bender
Assistant Clinical Professor: J. R. Whittier

At Henry Ittleson Center for Child Psychiatry:
Assistant Clinical Professor: W. Goldfarb

At Manhattan State Hospital:

Assistant Clinical Professor: I. Kesselbrenner
Instructors: H. C. B. Denber, H. Meiselas
Lecturer: N. Stein

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman
Associate Clinical Professor: H. I. Weinstock
Research Associate: W. C. Dement
Instructor: B. C. Meyer
Lecturers: C. Fisher, P. Goolker, L. Linn

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline
Research Associate: Y. Taketomo
Assistant: G. Simpson
Research Assistant: P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton
Assistant Clinical Professor: B. Balser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Thirty one-hour lectures and small group seminars concerned with the genetic, family, and cultural processes underlying healthy behavior, the nature of anxiety, the psychological methods of adaptation to anxiety, and the processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton.

Psychiatry 102S—Psychopathology. Twenty one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, Frazier, and Thetford; Dr. Watson.

Psychiatry 203–204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Gidro-Frank, Horwitz, Kesselbrenner, Langford, and R. MacKinnon; Dr. Polatin; and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Dr. A. Cooper and clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219–220—Psychological methods. Forenoons, twice a week. Professors Carr and Thetford.

Theories and exercises in clinical psychology. Limited to two students.

Psychiatry 221–222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

RADIOLOGY

Professors: H. W. Jacox, H. H. Rossi (*Physics*), W. B. Seaman (*chairman*), J. M. Taveras
Associate Professors: R. J. Guttmann, R. Rugh (*Biology*), J. S. Wells
Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer
Assistant Professors: M. Alpert, A. L. Bachman, D. H. Baker, K. Ellis, W. Gross (*Physics*), R. F. Hill (*Physics*), W. G. Lutz, R. Schlaeger, G. S. Schwarz, N. duV. Tapley
Associates: H. L. Atkins, C. B. Braestrup, N. E. Chase, L. A. Rottenberg
Instructors: M. H. Becker, W. G. Heimann, W. F. Machle, Jr., D. G. Potts, R. G. Prida, R. P. T. Reeves, P. Tretter, R. S. Yalow
Assistant: N. E. Leeds
Special Lecturer: E. H. Quimby

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf
Instructor: S. M. Silverstone

At St. Luke's Hospital:

Associate Clinical Professor: N. Finby

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201—Diagnostic radiology. Two hours a week for six weeks. Third year. Professors Alpert, Baker, Lutz, and Schwartz, and Drs. Chase and Reeves.

Radiology 202—Diagnostic radiology. One hour a week for eleven weeks. Third year. Includes lectures on the principles of the roentgenographic examination of the heart, lungs, and gastrointestinal tract. Professors Ellis, Schlaeger, and Seaman.

Radiology 203–204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Alpert, Baker, Seaman, Taveras, and Wells.

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox and Tapley.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Alpert, Ellis, Schlaeger, Schwarz, Seaman, and Taveras.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to the degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Rossi, Rugh, Seaman, and Tapley, and Messrs. Braestrup and Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*chairman*)
Professor: V. K. Frantz
Professor of Anatomy: M. R. Murray
Professor of Surgical Pathology: R. Lattes

Professors of Clinical Surgery: G. F. Crikelair, C. D. Haagensen
Clinical Professor: R. H. Wylie
Associate Professors: R. B. Hiatt, P. S. Russell (*Microbiology*)
Associate Professor of Surgical Pathology: N. Lane
Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, R. H. E. Elliott, Jr., D. V. Habif, M. R. Porter, T. V. Santulli
Associate Clinical Professor: J. M. Ferrer
Assistant Professors: J. R. Malm, J. Scudder
Assistant Professor of Biochemistry: I. Goodman
Assistant Professor of Surgical Pathology: L. Ozzello
Assistant Professors of Clinical Surgery: F. P. Herter, D. M. Ju, F. R. McAllister, G. Sanger, E. B. Self, P. D. Wiedel
Assistant Clinical Professors: H. Auchincloss, Jr., E. N. Goodman
Research Associates: B. Johnson, G. Katz, M. Levy, M. S. Parshley, E. Peterson, R. F. Shaw
Instructors: S. B. Bhonslay, Jr., F. O. Bowman, Jr., C. R. Feind, C. W. Findlay, C. O. Griffiths, Jr., G. Kleinfeld, A. M. Markowitz, A. Mittleman, J. Price, J. Prudden, F. C. Symonds, Jr., A. B. Voorhees
Research Assistant: H. H. Benitez
Assistants: R. A. Amoury, A. Azzoni, J. Blaunstein, R. S. de Jesus, P. Gerst, A. A. Khuri, R. A. Salerno, A. Shaw

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers
Associate Clinical Professor: J. Mithoefer
Assistant Clinical Professor: A. Jaretzki III

At Bellevue Hospital:

Clinical Professor: K. M. Lewis
Associate Clinical Professors: J. M. Chamberlain, H. C. Maier
Assistant Clinical Professors: J. Ford, W. W. Heroy, H. A. Kingsbury, A. Lambert, R. S. Mueller, D. M. Weeks, T. S. Winslow
Assistant Professor of Microbiology: C. L. Fox, Jr.
Associates: P. Kirschner, K. M. Lewis, Jr., W. W. Miner, E. G. Stanley-Brown, W. A. Wichern
Research Associate: H. Singer
Instructors: J. A. Malcolm, R. Matflerd, T. M. McNeill, R. T. Potter, R. K. Snyderman, J. M. Wilson, Jr.
Assistants: L. Ballantyne, S. J. Dickinson, B. Miller, M. Moley, J. C. Norman, Jr., E. T. Quash, F. R. Randall

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt
Associate Clinical Professor: H. Haimovici

At Mt. Sinai Hospital:

Clinical Professor: A. E. Kark

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson

Associate Clinical Professors: F. H. Amendola, J. W. Littler, J. E. Thompson
Associates: J. B. Rodgers, C. F. Stewart
Instructors J. T. Brennan, Jr.

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel
Associate Clinical Professors: A. E. W. Ada, H. F. Fitzpatrick, R. B. Stark
Assistant Clinical Professor: W. G. Knox
Associate: R. W. Fraser
Instructors: C. R. Blair, P. A. Bossart, R. T. Edmunds, E. P. Hevenor, C. S. Oakman
Assistants: A. C. Chamberlin, L. Coletti, C. R. DeHaan, R. E. Miller

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. Six hours a week for ten weeks. Second year. Professors Frantz, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery 211–212, Radiology, 201–202.*) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209–210—Outpatient clinical clerkships. Two months, combined with *Medicine 207–208.* Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211–212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery 204–205,* five and a half weeks. Third year. Professor Frantz.

Surgery 213–214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217–218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine 221–222.*

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221–222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Russell and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*chairman*)
Clinical Professor: M. M. Melicow
Associate Professor of Clinical Urology: H. H. Zinsser
Associate Clinical Professor: C. T. Hazzard
Assistant Professor: H. Seneca
Assistant Professor of Biochemistry: T. Price
Assistant Professors of Clinical Urology: T. J. Sullivan, R. J. Veenema
Associates: R. Jonnard, R. F. Seidel, A. Uson, R. C. Yeaw
Research Associate: G. G. Mayer
Research Associate in Physiology: H. Lamport
Instructors: S. B. Braham, A. L. Dean, J. T. Donovan, S. Pulrang, A. T. Willetts
Assistants: T. D. Boyes, P. F. Crutchlow, L. J. Dougherty, C. A. Furey, F. W. Longo, C. D. Miller, M. B. Pincus, M. J. Pirozzi, M. S. Roberts, R. P. White III

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201–202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professor Lattimer and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
Edith H. Quimby, *Special Lecturer in Radiology (Physics)*
Harald Rossi, *Professor of Radiology (Physics)*
Charles O. Beckmann, *Professor of Chemistry*
Walter S. Root, *Professor of Physiology*
Teru Hayashi, *Professor of Zoology*
T. Duane Price, *Assistant Professor of Biochemistry*

The following course is required for the degree of Doctor of Philosophy:

Biophysics G8202y—Special problems and techniques in biophysics. Four hours spring term. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in alternate years.*

WF 4:10–6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *G4015* and *G4016, Mathematics W3027, Chemistry C3091–C3092,* and *Zoology G6141,* or their equivalents.

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

Gross Anatomy. Required: *Textbook of Anatomy,* Cunningham, $17.50; *Atlas of Descriptive Human Anatomy, Vol. III,* Sobotta, $17.50; Dorland's or Stedman's *Medical Dictionary,* $12.50.

Microscopic Anatomy. Required: *Bailey's Textbook of Histology* (14th ed.), $11. Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, $11.

Neuroanatomy. Required: *Human Neuroanatomy* (4th ed.), Strong and Elwyn, $10; *Laboratory Manual for Neuroanatomy,* $1.10. Recommended but not required: *The Anatomy of the Nervous System* (10th ed.), Ranson and Clark, $9.50.

Embryology. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, $9.50; *Human Embryology* (2d ed.), Patten, $12.

Biochemistry. Required: *Principles of Biochemistry* (2d ed.), White, Handler, Smith, Stetten, $15; *Laboratory Manual* (1961), Staff, $2.50.

Dermatology. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, $13.50; *Practical Dermatology* (2d ed.), Lewis, $8.00; *Syphilis, Its Course and Management,* Thomas, $5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, $6.50.

Medicine. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed., 1938), Martini, $4.00; *Biochemistry of Diseases* (2d ed., 1952), Bodansky, $12; *Textbook of Medicine* (10th ed., 1959), Cecil and Loeb, $16.50; *Principles of Internal Medicine* (3d ed., 1958), Harrison, $18.50; *Classic Descriptions of Disease* (3d ed., 1955), Major, $8.50.

Microbiology. Required: *Laboratory Manual in Microbiology and Immunology,* $3.00; *Dubos' Bacterial and Mycotic Infections of Man* (3d ed.) and *Rivers' Viral and Rickettsial Infections of Man* (3d ed.), $17 per set.

Neurology. Required: *The Clinical Examination of the Nervous System* (11th ed.), Monrad-Krohn, $9.50; or *The Neurologic Examination* (2d ed.), DeJong, $20; and one of the following: *Textbook of Neurology* (2d ed.), Merritt, $12.50; *A Textbook of Clinical Neurology* (8th ed.), Wechsler, $11; *Diseases of the Nervous System,* Brain, $12. Recommended but not required: *Basis of Clinical Neurology,* Brock, $7.00; *Diseases of the Nervous System in Infancy, Childhood and Adolescence,* Ford, $29.50.

Obstetrics and Gynecology. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, $11. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, $14.

Ophthalmology. Recommended: *May's Diseases of the Eye* (22d rev. by C. A. Perera), $6.00; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, $8.00.

Orthopedic Surgery. Required: *Handbook of Orthopaedic Surgery* (5th ed.), A. R. Shands, $9.75; *Manual of Orthopaedic Surgery,* American Orthopaedic Association, $1.50; *An Outline of the Treatment of Fractures* (1956), American College of Surgeons, $1.25; *Early Care of Acute Soft Tissue Injuries* (1954), American College of Surgeons, $1.25. Recommended but not required: *Textbook of Orthopedics* (1952), M. B. Howorth, $18; *Orthopaedics: Principles and Their Application* (1959), S. L. Turek, $22.50; *Trauma* (1959), H. L. McLaughlin, $18; *Fractures and Joint Injuries* (4th ed., 1952-55), R. Watson-Jones, $22; *A Manual of Fractures and Dislocations* (3d ed.), Stimson, $4.50.

Otolaryngology. Required (one of the following): *Fundamentals of Otolaryngology* (3d ed.), Boies, $8.00; *Basic Otolaryngology,* F. Lederer and A. R. Hollender, $7.50; *Textbook of Otolaryngology,* De Weese and Saunders, $8.75.

Pathology. Recommended for *101FST* (one of the following): *Pathology,* Anderson, $16; *Textbook of Pathology,* Robbins, $18.

Pediatrics. Required (one of the following): *Holt Pediatrics,* Holt and McIntosh, $15; *Textbook of Pediatrics,* W. E. Nelson, $16.50. Recommended but not required: *Growth and Development of Children* (3d ed.), Watson and Lowrey, $7.75; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, $28; *Common Contagious Diseases,* Stimson and Hodes, $8.50.

Pharmacology. Required: *The Pharmacological Basis of Therapeutics* (2d ed.), Goodman and Gilman, $17.50; *New and Nonofficial Drugs* (current ed.), $4.00.

Physiology. Required: *Philip Bard's Medical Physiology,* $14.

Psychiatry. Required: *Modern Clinical Psychiatry* (5th ed.), Noyes and Kolb, $8.00. Recommended but not required: *Introduction to Psychiatry* (2d ed.), English and Finch, $6.95.

Public Health. Recommended: *Basic Clinical Parasitology* (1958), Belding, $9.00; *Preventive Medicine and Public Health* (2d ed., 1952), W. G. Smillie, $7.50; *Preventive Medicine for the Doctor in His Community,* H. R. Leavell and E. G. Clark, $10; Rosenau, *Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, $15; *An Introduction to Public Health* (1959), Mustard and Stebbins, $5.00.

Radiology. Recommended but not required: *Radiology for Medical Students,* Hodges, Lampe, and Holt, $8.50.

Surgery. Required: *Introduction to Surgery* (4th ed.), Frantz and Harvey, $6.00. Recommended but not required: *Surgery Principles and Practice,* Allen and others, $16; *Textbook of Surgery* (7th ed.), Christopher, $17; *Textbook of Surgery* (7th ed.), Cole and Elman, $17; *Manual of Anesthesiology,* Schwartz and others, $4.25; *Fundamentals of General Surgery,* Gius, $12.50.

Urology. Recommended but not required: *General Urology,* Smith, $4.50; *Principles of Urology,* Campbell, $9.50; *Urology* (1956), B. G. Clarke and L. R. DelGuercio, $4.50; *An Outline of Urology* (2d ed.), C. D. Creevy, $4.25; *Mechanisms of Urologic Disease* (1953), D. M. Davis, $4.50; *Synopsis of Urology* (5th ed.), A. I. Dodson, $4.00; *Fundamentals of Urology* (4th ed.), R. M. Nesbit, J. Lapides, and W. C. Baum, $3.00; *Handbook of Surgical Urology for Interns, Hospital Corpsmen and Nurses* (1949), N. F. Ockerblad, $3.00.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens

The microscopic requirements listed above represent the minimum. Most students will prefer to have a microscope with a quadruple nosepiece carrying a low power scanning objective in addition to the 16mm, 4mm, and oil immersion objectives.

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $425 to $640. Each student should also provide himself with a substage lamp. Microscopes may be rented at $8 a month or $70 for a school year. A limited supply of binoculars are available also for rental at $15 a month, or $130 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

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PAPPER, EMANUEL M., *Professor of Anesthesiology;* A.B., Columbia, 1935; M.D., New York University, 1938
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PATTERSON, HOWARD A., *Clinical Professor of Surgery;* A.B., North Carolina, 1921; M.D., Harvard, 1925
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Bard, David S.—University Hospitals, Columbus, Ohio
Bates, Griffin M., Jr.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Becker, Heber W., Jr.—George F. Geisinger Memorial Hospital, Danville, Pa.
Beckman, Daryl E.—Pennsylvania Hospital, Philadelphia, Pa.
Benjamin, Burton I.—University of Virginia Hospital, Charlottesville, Va.
Billig, Stuart L.—Philadelphia General Hospital, Philadelphia, Pa.
Bowe, Edward T.—Syracuse Medical Center Hospitals, Syracuse, N.Y.
Brill, Charles B.—Bronx Municipal Hospital Center, New York City
Brunjes, Carl F.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
Bullwinkel, George A.—St. Luke's Hōspital, New York City
Campbell, Allen B.—Presbyterian Hospital, New York City
Campbell, Patricia A.—Bellevue Hospital Center, First Medical Div., New York City
Christensen, Edward W.—Kings County Hospital Center, New York City
Clark, Hugh—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Clevenger, Joseph H.—Univ. of Illinois Research and Educ. Hospitals, Chicago, Ill.
Cohen, Martin N.—Peter Bent Brigham Hospital, Boston, Mass.
Cohen, Stanley—Bronx Municipal Hospital Center, New York City
Cohn, Lawrence J.—Montefiore Hospital, New York City
Corning, Howard B.—Massachusetts General Hospital, Boston, Mass.
Cross, Carroll E.—University Hospitals, Madison, Wis.
Curran, John P.—St. Luke's Hospital, New York City
Dans, Peter E.—Johns Hopkins Hospital, Baltimore, Md.
Dantzler, William H.—University Hospitals, Seattle, Wash.
De Witt, Robert J.—Mary Fletcher Hospital, Burlington, Vt.
Decker, Norman—King County Hospital, Seattle, Wash.
Dennis, Allen J., Jr.—DeGoesbriand Memorial Hospital, Burlington, Vt.
Deuel, Ruthmary K.—University of Chicago Clinics, Chicago, Ill.
Deuel, Thomas F.—University of Chicago Clinics, Chicago, Ill.
Duberstein, Joel L.—Mount Sinai Hospital, New York City
Duncan, William Y., III—Univ. of Oregon Medical School Hospitals, Portland, Ore.
Durante, Lawrence J.—St. Vincent's Hospital, New York City
Dwyer, Edward M.—St. Luke's Hospital, New York City
Emery, Edward S., III—University Hospitals, Cleveland, Ohio
Finkel, Jerry B.—Mount Sinai Hospital, New York City
Fleming, William H.—Presbyterian Hospital, New York City
Gale, James L.—Bellevue Hospital Center, Second Medical Div., New York City
Gilman, Richard A.—Bronx Municipal Hospital Center, New York City
Ginsberg, Joel—Beth-El Hospital, New York City
Glass, Joseph L.—Mount Sinai Hospital, New York City
Golden, Gerald S.—University of Minnesota Hospitals, Minneapolis, Minn.
Graham, Paul A.—University Hospitals, Cleveland, Ohio
Gregory, Raymond F.—University of Minnesota Hospitals, Minneapolis, Minn.
Grossbard, Lionel—Presbyterian Hospital, New York City
Grossman, Frederick M.—Montefiore Hospital, New York City
Guggenheim, Frederick—Bellevue Hospital Center, Third Medical Div., New York City
Gwyn, Paul P., Jr.—Duke Hospital, Durham, N.C.
Harvey, Seth—Medical College of Virginia, Hospital Div., Richmond, Va.
Hendricks, Ed J.—Parkland Memorial Hospital, Dallas, Tex.
Hope, Peter B.—St. Vincent's Hospital, New York City
Janoski, Alfonso H.—Bellevue Hospital Center, First Medical Div., New York City
Kalinske, Robert W.—University of Chicago Clinics, Chicago, Ill.
Katz, Edward L.—San Francisco General Hospital, San Francisco, Calif.
Katz, Leonard A.—Bronx Municipal Hospital Center, New York City
Kohler, Peter F.—University of Minnesota Hospitals, Minneapolis, Minn.
Kohn, Leonard D.—Presbyterian Hospital, New York City
Kovel, Joel S.—Bronx Municipal Hospital Center, New York City
Labourdette, Irene L.—Lenox Hill Hospital, New York City
Lemlich, Arthur—St. Vincent's Hospital, New York City
Levitzky, Munro J.—Bellevue Hospital Center, Third Medical Div., New York City
Luftschein, Stanley—Bronx Municipal Hospital Center, New York City
Luikart, William E.—Public Health Service
Mack, Thomas M.—Colorado General Hospital, Denver, Colo.
Maenza, Ronald M.—Bronx Municipal Hospital Center, New York City

Marcuse, Donald J.—Bellevue Hospital Center, Third Medical Div., New York City
Marglin, Arnold—George Washington University Hospital, Washington, D.C.
Melges, Frederick T.—University Hospital, Ann Arbor, Mich.
Meyer, James H.—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Meyerson, Arthur T.—Bellevue Hospital Center, First Medical Div., New York City
Morgan, Walter E., III—Presbyterian Hospital, New York City
Mulcare, Robert J.—Presbyterian Hospital, New York City
Nachamie, Benjamin A.—Albany Hospital, Albany, N.Y.
Neer, Robert M., Jr.—Bronx Municipal Hospital Center, New York City
Nesti, Richard P.—Mary Fletcher Hospital, Burlington, Vt.
O'Connell, Francis D.—Boston City Hospital, Fifth Surgical Div., Boston, Mass.
Pflueger, Otto H., Jr.—King County Hospital, Seattle, Wash.
Philip, James L.—Mary Fletcher Hospital, Burlington, Vt.
Powell, William J., Jr.—Grace-New Haven Community Hospital, New Haven, Conn.
Pressman, David L.—Fifth & Sixth Medical Boston University, Boston, Mass.
Redman, Helen C.—Palo Alto-Stanford Medical Center, Stanford, Calif.
Reich, Paul R.—Presbyterian Hospital, New York City
Reichel, William—Mary Fletcher Hospital, Burlington, Vt.
Riggins, Robert C. K.—New York Hospital, New York City
Robbins, Michael D., Jr.—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Robinson, James A.—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Robinson, John L.—St. Luke's Hospital, New York City
Rosen, John E.—Montefiore Hospital, New York City
Ryan, John F.—St. Elizabeth's Hospital, Boston, Mass.
Schuh, Sara E.—St. Luke's Hospital, New York City
Schwartzman, William—San Francisco Hospital, San Francisco, Calif.
Schwarzberg, Jane E.—Bronx Municipal Hospital Center, New York City
Scott, Robert H.—Minneapolis General Hospital, Minneapolis, Minn.
Sherwood, Louis M.—Presbyterian Hospital, New York City
Skolnick, Mordecai L.—Philadelphia General Hospital, Philadelphia, Pa.
Song, Chull S.—The New York Hospital, New York City
Standfast, Susan J.—King County Hospital, Seattle, Wash.
Stevenson, Donald D.—University Hospital, Ann Arbor, Mich.
Stouch, William H.—Mary Fletcher Hospital, Burlington, Vt.
Strayer, Luther M., III—Roosevelt Hospital, New York City
Talbott, John A.—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Teran, Irwin B.—Bellevue Hospital Center, First Medical Div., New York City
Terry, Stephen—Bellevue Hospital Center, First Medical Div., New York City
Thurer, Richard J.—Presbyterian Hospital, New York City
Townsend, Eleanor M.—St. Luke's Hospital, New York City
Troy, Bart L.—Strong Memorial, Rochester Municipal Hospitals, Rochester, N.Y.
Tucker, Marjorie J.—Mount Sinai Hospital, New York City
Uprichard, Eleanore E.—Strong Memorial, Rochester Municipal Hospitals, Rochester, New York
Wanderer, Alan A.—Bellevue Hospital Center, First Medical Division, New York City
Wanger, Stephen L.—Beth Israel Hospital, Boston, Mass.
Watson, Charles G.—University Hospitals, Cleveland, Ohio
Weber, Eric T.—Mary Hitchcock Memorial Hospital, Hanover, N.H.
Weil, Richard, III—Presbyterian Hospital, New York City
Wilson, Paul T.—University of Chicago Clinics, Chicago, Ill.

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1962

Ackerman, A. Bernard — Elizabeth, N.J.
A.B., Princeton, 1958

Allen, Thomas E. — Milwaukee, Wis.
A.B., Princeton, 1958

Augur, Newell A., Jr. — St. Louis, Mo.
B.E., Yale, 1958

Baker, Fred L. — Owensboro, Ky.
A.B., Wabash, 1958

Barlow, Peter B. — Englewood, N.J.
A.B., Harvard, 1958

Behrens, Myles M. — Brooklyn, N.Y.
A.B., Yale, 1958

Bell, Donald C. — Wooster, Ohio
A.B., Wooster, 1953
B.D., Chicago, 1956

Bell, H. Glenn, Jr. — San Francisco, Calif.
A.B., Stanford, 1958

Bell, Robinette Nixon — New York City
A.B., Smith, 1951

Berkes, Kenneth J., Jr. — Baldwin, N.Y.
A.B., Hamilton, 1958

Berman, Howard H. — Elliott City, Md.
A.B., Duke, 1958

Bezahler, Stephen — Camden, N.J.
A.B., Williams, 1958

Bowers, Henry Myers, Jr. — New York City
A.B., Princeton, 1957

Brown, Courtney Warren — Scarsdale, N.Y.
A.B., Williams, 1957

Brown, Richard M. — Princeton, N.J.
A.B., Princeton, 1958

Bruck, Harold M. — Newark, N.J.
A.B., Hamilton, 1958

Brust, John C. M., Jr. — Syracuse, N.Y.
A.B., Harvard, 1958

Bull, Marcia Buckley — Wakeman, Ohio
A.B., Mount Holyoke, 1958

Bull, Sherman M. — Riverdale, N.Y.
A.B., Yale, 1958

Burress, Donald A. — New York City
A.B., Ripon, 1955
B.S., M.S., Massachusetts Institute of Technology, 1956

Campbell, James M. — South Bend, Ind.
A.B., Yale, 1958

Casazza, Albert R. — Secaucus, N.J.
A.B., Princeton, 1958

Cassileth, Peter A. — New York City
A.B., Union, 1958

Caton, Donald — Washington, D.C.
B.S., Yale, 1958

Chao, Solan — New York City
A.B., Cornell, 1954

Coates, Edward D. — Glendale, Calif.
A.B., Yale, 1958

Cohen, Donald S. — Port Jervis, N.Y.
A.B., Hamilton, 1958

Coen, Stanley J. — Brooklyn, N.Y.
A.B., Columbia, 1958

Cohn, Peter F. — Scarsdale, N.Y.
A.B., Columbia, 1958

Coulis, Despine L. — Salem, Mass.
A.B., Smith, 1958

Covey, William G. — New York City
A.B., Columbia, 1958

Danes, Betty Shannon — Brightwater, N.Y.
A.B., Mt. Holyoke, 1948
M.A., Texas, 1949
Ph.D., Iowa, 1952

Dauber, Leonard G. — Brooklyn, N.Y.
A.B., Columbia, 1958

Dubin, Howard V. — New York City
A.B., Columbia, 1958

Duncan, William C., III — Northampton, Mass.
A.B., Princeton, 1958

Flagg, Stephen V. — Englewood, N.J.
B.S., Yale, 1957

Fogelberg, Earl Victor — Chicago, Ill.
A.B., Princeton, 1958

Fox, Howard A. — Forest Hills, N.Y.
B.S., Union, 1954

Frankel, Herman Morris — Brooklyn, N.Y.
A.B., Columbia, 1958

Franzone, Andrew J. — New York City
A.B., Holy Cross, 1958

Gamble, Anne van N. — New York City
A.B., Mount Holyoke, 1956

Geller, Arthur S. — Laurelton, N.Y.
A.B., Williams, 1958

Gollance, Robert B. — Brooklyn, N.Y.
A.B., Harvard, 1958

Grant, John P., Jr. — New York City
A.B., Amherst, 1954

Gray, Parke H. — Hartford, Conn.
A.B., Williams, 1958

Gutstein, Robert A. — Brooklyn, N.Y.
A.B., Colgate, 1958

Haft, Jacob I. — Belleville, N.J.
A.B., Harvard, 1958

Hankin, Edwin — Brooklyn, N.Y.
A.B., Columbia, 1958

Herzberg, Robert M. — Pacific Palisades, Calif.
A.B., Reed, 1958

Hirschhorn, Norbert — New York City
A.B., Columbia, 1958

Hurst, Fred S. — New York City
A.B., Princeton, 1958

Immordino, Peter A. — Yonkers, N.Y.
A.B., New York University, 1958

Johnson, Warren D., Jr. — Gurnee, Ill.
B.S., Carroll, 1958

Karliner, Joel S. — Fort Lee, N.J.
A.B., Columbia, 1958

Kelley, John — Southampton, N.Y.
A.B., Brown, 1957

Kilburn, Howard Lee — Wenatchee, Wash.
A.B., University of Washington, 1958

Kim, James Dong-Su — Harrison, Me.
A.B., Bowdoin, 1957

Klein, William J., Jr. — New York City
A.B., Cincinnati, 1958

Kovach, John S. — Shaker Heights, Ohio
A.B., Princeton, 1958

Kraut, Joel A. — Jersey City, N.J.
A.B., Princeton, 1958

Kreek, Mary Jeanne — Washington, D.C.
A.B., Wellesley, 1958

Lerner, Irving J. — Cincinnati, Ohio
A.B., Yale, 1958

Levine, Jonathan — Brooklyn, N.Y.
A.B., Columbia, 1958
Lovejoy, William P. — Oldwick, N.J.
A.B., Yale, 1956
McCarroll, Henry R. — St. Louis, Mo.
A.B., Princeton, 1958
McCray, Richard S. — Columbus, Ohio
A.B., Wesleyan, 1954
B.D., Yale, 1957
Margolies, Lawrence Noel — New York City
A.B., Columbia, 1958
Margolies, Michael N. — Flushing, N.Y.
A.B., Harvard, 1958
Marks, Clement E., Jr. — Bethlehem, Pa.
A.B., Dartmouth, 1958
Miller, Robert L. — Elmira, N.Y.
A.B., Hamilton, 1958
Millheiser, Peter John — New York City
A.B., Columbia, 1957
Moloy, Peter Jay — New York City
A.B., Harvard, 1958
Murphy, Scott — Merion, Pa.
A.B., Yale, 1958
Nadel, Martin S. — Mahopac, N.Y.
A.B., Hamilton, 1957
Nasr, Khosrow — Tehran, Iran
B.S., Yale, 1958
Nisonson, Ian — New York City
A.B., Columbia, 1958
Oppenheimer, Edward A. — New York City
A.B., Columbia, 1958
Pagliaro, Salvatore J. — New York City
A.B., Columbia, 1958
Parry, Peter V. — Lynbrook, N.Y.
A.B., Hofstra, 1958
Pascal, Robert R. — New York City
A.B., Columbia, 1958
Patek, David J. — New York City
A.B., Harvard, 1958
Pease, Paul J. — Lewisburg, Ohio
A.B., Miami, 1958
Puchner, Peter J. — Manitowoc, Wis.
A.B., Carleton, 1958
Purcell, Ganson, Jr. — Washington, D.C.
A.B., Williams, 1958
Reber, Robert E. — Circleville, Ohio
A.B., Ohio, 1958
Reese, Thomas S. — Cleveland, Ohio
A.B., Harvard, 1957
Romas, Nicholas A. — Endicott, N.Y.
A.B., Colgate, 1958
Root, Elihu N. — New York City
B.S., College of the City of New York, 1958
Rosen, Barbara J. — Dedham, Mass.
B.S., Simmons, 1956
M.S., Vassar, 1958
Rygorsky, Jerome E. — Brooklyn, N.Y.
A.B., New York University, 1958
Schiff, Eugene R. — Cincinnati, Ohio
A.B., Michigan, 1958
Schuster, Timothy S. — Hewlett, N.Y.
A.B., Harvard, 1958
Schwartz, Gabriel H. — Mount Vernon, N.Y.
A.B., Princeton, 1958
Seidenberg, Boyd H. — New York City
A.B., Columbia, 1958
Sheagren, John Newcomb — Rockford, Ill.
A.B., Carleton, 1957
Sherman, Spencer E. — Englewood, N.J.
A.B., Princeton, 1958
Silver, Stephen E. — Brooklyn, N.Y.
A.B., Princeton, 1958
Smelzer, Timothy H. — Pittsburgh, Pa.
A.B., Hamilton, 1958
Smith, Frank Rees — Flint, Mich.
A.B., Dartmouth, 1959
Solomon, Henry A. — Brooklyn, N.Y.
A.B., Columbia, 1958
Steele, Thomas H. — New Castle, Pa.
B.S., Haverford, 1958
Steiner, Alton L. — Albany, N.Y.
A.B., Harvard, 1958
Stewart, Franz H., Jr. — Miami, Fla.
A.B., Emory, 1958
Talbot, Bernard — New York City
A.B., Columbia, 1958
Thompson, Robert D. — Akron, Ohio
A.B., Princeton, 1958
Ulin, Richard I. — New York City
B.S., Franklin and Marshall, 1958
Valuska, James W. — Mingo Junction, Ohio
A.B., Princeton, 1958
Voeller, Kytja Kerwyn — Portland, Ore.
A.B., Reed, 1958
M.A., Bryn Mawr, 1954
Vogel, James M. — New York City
A.B., Wesleyan, 1958; M.A., 1959
Waldbaum, Robert S. — Brooklyn, N.Y.
A.B., Columbia, 1958
Walker, Barry R. — Reading, Pa.
A.B., Yale, 1958
Waterson, K. William, Jr. — Tenafly, N.J.
B.S., Washington and Lee, 1958
Weight, Forrest F., Jr. — Middletown, N.Y.
A.B., Princeton, 1958
Weinstein, Joel David — Memphis, Tenn.
A.B., Princeton, 1958
Weksler, Marc E. — Brooklyn, N.Y.
A.B., Swarthmore, 1958
White, John J., Jr. — Glen Rock, N.J.
A.B., Yale, 1958
Winslow, Robert B. — Ridgefield, Conn.
A.B., Princeton, 1958
Zeft, Howard J. — Philadelphia, Pa.
A.B., Princeton, 1958

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THIRD-YEAR CLASS—CLASS OF JUNE, 1963

Anderson, M. Lanier — Louisville, Ky.
A.B., Smith, 1959
Aronson, William Jordan — Middlesex, Mass.
A.B., Harvard, 1951
M.S., Massachusetts Institute of Technology, 1953
Assali, Albert V. — Port-au-Prince, Haiti
A.B., Harvard, 1959
Bachner, Paul — New York City
A.B., College of the City of New York, 1959
Baer, Leslie — New York City
A.B., Wisconson, 1959
Banner, Richard L. — Brooklyn, N.Y.
A.B., Amherst, 1959
Bissell, LeClair — New York City
A.B., Colorado, 1950
M.S., Columbia, 1952
Blacklow, Neil R. — Belmont, Mass.
A.B., Harvard, 1959
Briska, Philip Thomas — New York City
A.B., Harvard, 1952

Brown, Arthur L. Darien, Conn.
A.B., Princeton, 1959
Brown, Robert S. New York City
A.B., Harvard, 1959
Bruce, David H. Wilmington, Del.
A.B., Harvard, 1959
Burd, Robert M. Bronx, N.Y.
A.B., Columbia, 1959
Cannon, Wayne D., Jr. Montevideo, Uruguay
B.S., Yale, 1959
Chun, Clyde W. Marblehead, Mass.
A.B., Harvard, 1959
Churchill, Winthrop H., Jr., Cambridge, Mass.
A.B., Harvard, 1959
Cohen, Roger David Newton Center, Mass.
A.B., Harvard, 1959
Coli, Robert Dante Warwick, R.I.
B.S., Tufts, 1959
Daugharty, Terrance M. Seattle, Wash.
B.S., Seattle, 1959
Davidson, David Beck White Plains, N.Y.
A.B., Harvard, 1959
Deakins, Susan M. Signal Mountain, Tenn.
A.B., Smith, 1958
Dickey, Richard A. Indianapolis, Ind.
A.B., Kenyon, 1959
Dickinson, Louis E., III McCook, Neb.
A.B., Harvard, 1959
Ehrlich, Michael G. New York City
A.B., Dartmouth, 1959
Epstein, Murray Brooklyn, N.Y.
A.B., Columbia, 1959
Feig, Stephen A. New York City
A.B., Princeton, 1958
Feldman, Martin D. Mahopac, N.Y.
A.B., Yale, 1959
Ferrari, Dudley A. Shelburne Falls, Mass.
A.B., Columbia, 1959
Fischer, Edwin G. Darien, Conn.
A.B., Harvard, 1959
Fisher, Susan Michal New York City
B.S., Chicago, 1959
Geller, Martin P. Brooklyn, N.Y.
A.B., Columbia, 1959
Grant, Sandra Elisabeth Liberty, N.Y.
A.B., Bryn Mawr, 1958
Hakanson, Carl M. Bergenfield, N.J.
A.B., Hamilton, 1959
Harell, George S. New York City
A.B., Oberlin, 1959
Heissenbuttal, Robert H. Mercer, Pa.
A.B., Thiel, 1959
Hoffman, Joel S. Long Beach, N.Y.
A.B., Harvard, 1959
Howard, Clifton M. Mt. Kisco, N.Y.
B.S., Harvard, 1943
M.A., Harvard, 1947
Howards, Stuart S. Milwaukee, Wis.
A.B., Yale, 1959
Howie, Dennis P. Brooklyn, N.Y.
A.B., Hamilton, 1959
Hunsicker, Lawrence Gheen Darien, Conn.
A.B., Yale, 1959
Jordan, George W. Denver, Colo.
B.S., Denver, 1959
Kahn, Mark E. Brooklyn, N.Y.
A.B., Columbia, 1959
Kamins, Lloyd P. Milwaukee, Wis.
B.S., California Institute of Technology, 1959
Kem, David C. New York City
A.B., Earlham, 1959
Krakoff, Lawrence R. New York City
A.B., Yale, 1959
Krick, Warren J. Washington, D.C.
A.B., George Washington, 1959
Larsen, Reed New York City
A.B., Princeton, 1959
Lattes, Conrad G. New York City
A.B., Swarthmore, 1958
Lesneski, Albert Conrad Fort Lee, N.J.
A.B., Princeton, 1958
Lewis, Myron Memphis, Tenn.
A.B., Dartmouth, 1959
Lightdale, Mayer R. Jersey City, N.J.
A.B., Princeton, 1957
Lindy, Jacob D. Philadelphia, Pa.
A.B., Yale, 1959
McSherry, Elisabeth Milton, Mass.
A.B., Radcliffe, 1960
Mackler, Gerald L. West Hartford, Conn.
A.B., Harvard, 1959
Maletzky, Avron J. Schenectady, N.Y.
A.B., Princeton, 1959
Manzler, Alan D. Cincinnati, Ohio
A.B., Princeton, 1959
Mauerman, George S. Monroe, Wis.
A.B., Vanderbilt, 1959
Michelsen, W. Jost Boston, Mass.
A.B., Harvard, 1959
Morgan, Daniel D., Jr. New Haven, Conn.
A.B., Yale, 1959
Mosher, Paul W. Albany, N.Y.
A.B., Harvard, 1958
Muehlbauer, Peter F. Brooklyn, N.Y.
A.B., Columbia, 1959
Muhm, Harvard Yale St. Charles, Mo.
A.B., Yale, 1959
Murphy, John Thomas Chappaqua, N.Y.
Princeton, 1959
Musher, Daniel M. New York City
A.B., Harvard, 1959
Naiman, Peter Todd Brooklyn, N.Y.
A.B., Williams, 1959
Neer, Eva Julia New York City
A.B., Barnard, 1959
Nelson, Bruce David Portland, Me.
A.B., Bowdoin, 1959
Nevel, William G. Walden, N.Y.
A.B., Columbia, 1959
Newberg, Marc E. Jamaica, N.Y.
A.B., Williams, 1959
Noble, John, III Beirut, Lebanon
A.B., Harvard, 1959
Orahood, Richard C. Marysville, Ohio
A.B., Ohio Wesleyan, 1958
Ortiz, Carmen I. Santurce, Puerto Rico
A.B., Wellesley, 1959
Page, Robert B. New York City
A.B., Amherst, 1959
Paris, George L. Ridgway, Pa.
B.S., Carnegie Institute of Technology, 1959
Parker, James D. Glen Ridge, N.J.
A.B., Cornell, 1959
Perlman, Richard D. Brooklyn, N.Y.
A.B., Princeton, 1959
Pleasure, David E. Middletown, N.Y.
A.B., Yale, 1959
Pohlman, Mark H. Columbus, Ohio
A.B., Princeton, 1959
Poppa, Geraldine Brooklyn, N.Y.
A.B., Vassar, 1959

Reifsnyder, David N. — New York City
A.B., Columbia, 1957
Rein, Joel M. — New York City
A.B., Columbia, 1959
Reynolds, James Christopher — Alexandria, Va.
A.B., Harvard, 1959
Rittenberg, Stephen M. — Englewood, N.J.
A.B., Columbia, 1957
Rodnan, Jeanette C. — New York City
A.B., Barnard, 1959
Rosenbaum, Maj-britt Tornquist — Larchmont, N.Y.
Helsinki, 1959
Rosenblatt, Martin G. — Montclair, N.J.
A.B., Princeton, 1958
Rudders, Richard A. — Brooklyn, N.Y.
A.B., Princeton, 1959
Ryder, Richard A. — Boonville, N.Y.
B.S., Rochester, 1956
Sachs, Frederick L. — Brooklyn, N.Y.
A.B., Princeton, 1959
Sade, Robert Miles — Newton, Mass.
A.B., Wesleyan, 1959
Saks, Joel W. — Springfield, Mass.
A.B., Wesleyan, 1959
Schaefer, Robert A. — Dobbs Ferry, N.Y.
A.B., Yale, 1959
Schecter, Alan N. — Brooklyn, N.Y.
A.B., Cornell, 1959
Scheiner, David L. — Margate, N.J.
A.B., Princeton, 1959
Scherzer, Alfred Leonard — New York City
M.A., Yale, 1957
Schneider, William J. — Mount Vernon, N.Y.
B.S., Tufts, 1959
Schonberg, Stephen S. — West Hempstead, N.Y.
A.B., Princeton, 1959
Schwartz, David T. — University Heights, Ohio
A.B., Harvard, 1959
Serber, Barbara Jo — New York City
A.B., Indiana, 1955
Ph.D., Columbia, 1955
Serxner, Jonathan L. — Brooklyn, N.Y.
A.B., Columbia, 1959
Shupack, Jerome Leonard — Brooklyn, N.Y.
A.B., Columbia, 1959
Silver, Lawrence R. — Cedarhurst, N.Y.
A.B., Yale, 1959
Simmonds, John S. — Arlington, Va.
A.B., Yale, 1959
Smith, Charles M. — Chillicothe, Ohio
A.B., Princeton, 1959
Snyder, Bernard M. — Harrisburg, Pa.
A.B., Franklin and Marshall, 1959
Steinfeld, Leonard I. — Bronx, N.Y.
A.B., Princeton, 1959
Steinman, Charles R. — Brooklyn, N.Y.
A.B., Princeton, 1959
Taylor, Marc J. — Mount Vernon, N.Y.
A.B., Amherst, 1958
Tiley, Frederick W. — Lehighton, Pa.
A.B., Princeton, 1959
Wainstein, Eli — Forty Fort, Pa.
A.B., Pennsylvania, 1959
Wang, Norma M. T. — Philadelphia, Pa.
A.B., Pennsylvania, 1959
Weksler, Babette — Teaneck, N.J.
A.B., Swarthmore, 1958
Wider, Jerry A. — Bay Shore, N.Y.
A.B., Princeton, 1959
Williams, Thomas A. — New York City
A.B., Harvard, 1958
Wolfinger, Howard Leiter, Jr. — Greencastle, Pa.
B.S., Haverford, 1959
Wood, Dean Scott — Santa Cruz, Calif.
A.B., Harvard, 1959
Zener, Julian C. — Durham, N.C.
A.B., Harvard, 1959
Zweiback, Eugene M. — Omaha, Neb.
A.B., Princeton, 1959

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SECOND-YEAR CLASS—CLASS OF JUNE, 1964

Andrews, Willard E. — Palisade, N.J.
A.B., Haverford, 1960
Arend, William P. — Holland Patent, N.Y.
A.B., Williams, 1959
Attkiss, Michael J. — Brooklyn, N.Y.
A.B., Harvard, 1960
Ballard, Bruce L. — Waverly Hills, Ky.
A.B., Yale, 1960
Barnum, Howard J., Jr. — Wilton, Conn.
A.B., Florida Southern, 1942
Barth, Rolf F. — Jackson Heights, N.Y.
A.B., Cornell, 1959
Bedell, David T. — Jacksonville, Fla.
A.B., Virginia, 1960
Berio, Jose M., Jr. — Santurce, Puerto Rico
B.S., Puerto Rico, 1960
Berk, Paul D. — Brooklyn, N.Y.
A.B., Swarthmore, 1959
Berman, Harris A. — Concord, N.H.
A.B., Harvard, 1960
Blass, John P. — Stamford, Conn.
A.B., Harvard, 1958
Ph.D., London, 1960
Blaydow, A. Kenneth — Gladwyne, Mass.
A.B., Princeton, 1958
Blume, Ralph S. — Yonkers, N.Y.
A.B., Amherst, 1960
Boothe, Robert L. — Westfield, N.J.
A.B., Princeton, 1960
Bowers, William E. — Wilmette, Ill.
A.B., Princeton, 1960
Bronshvag, Mike M. — Bronx, N.Y.
A.B., New York University, 1960
Brooks, John R. — Meriden, Conn.
A.B., Yale, 1960
Brower, Anne C. — Westfield, N.J.
A.B., Smith, 1960
Brudner, Harvey J. — Bronx, N.Y.
B.S., New York University, 1952
M.S., 1954; Ph.D., 1959
Buker, Gerald D. — Vestal, N.Y.
B.S., Wheaton, 1960
Cervino, A. Lawrence — Greensburg, Pa.
A.B., Princeton, 1960
Chaitman, Edmund — Forest Hills, N.Y.
A.B., Hamilton, 1960
Chen, Peter S. — New York City
A.B., Harvard, 1960
Childers, Jack C., Jr. — Lexington, N.C.
A.B., Princeton, 1960
Conrad, Sue F. — Little Falls, N.Y.
A.B., Rochester, 1960
Crocker, Charles — Pebble Beach, Calif.
B.S., Stanford, 1960
Culver, James E., Jr. — Bridgeville, Del.
A.B., Dartmouth, 1960
David, David S. — Great Neck, N.Y.
A.B., Columbia, 1960

Decter, Neil — Rockaway Beach, N.Y.
A.B., Columbia, 1960
deFuria, Frank G. — Upper Darby, Pa.
A.B., Harvard, 1960
De La Chapelle, Alain A. — Larchmont, N.Y.
A.B., Columbia, 1960
De Muth, Simon H. — New City, N.Y.
A.B., Princeton, 1960
Dent, Thomas L. — Fayette City, Pa.
A.B., Yale, 1960
Doctoroff, Stephen J. — Newton Centre, Mass.
A.B., Harvard, 1960
Donahoe, Patricia K. — Braintree, Mass.
B.S., Boston, 1958
Egan, James H. — Bellmore, N.Y.
B.S., William and Mary, 1960
Essandoh, Samuel O. — Ghana, W. Africa
A.B., Lincoln, 1958
Finn, James W. — Greenwich, Conn.
A.B., Amherst, 1959
Forrest, David V. — Rockville Centre, N.Y.
A.B., Princeton, 1960
Franck, Walter A. — Scarsdale, N.Y.
A.B., Yale, 1960
Freedman, Gerald S. — Mt. Vernon, N.Y.
B.M.E., Cornell, 1959
Freyer, Stuart — Great Neck, N.Y.
A.B., Columbia, 1960
Friedberg, Michael A. — Brooklyn, N.Y.
A.B., Williams, 1960
Friend, William G. — Seattle, Wash.
A.B., Princeton, 1960
Frueh, Bartley R. — Lakewood, Ohio
B.C.E., Cornell, 1960
Gelfand, Michael L. — New York City
A.B., Columbia, 1960
Gerstel, Howard M. — Hewlett, N.Y.
A.B., Columbia, 1960
Gilbert, Marvin S. — Mt. Vernon, N.Y.
A.B., Columbia, 1960
Golwyn, Daniel H. — Philadelphia, Pa.
A.B., Kenyon, 1959
Gregg, Thomas F. — Cambridge, Mass.
A.B., Harvard, 1959
Gregory, John G. — Merion Station, Pa.
A.B., Princeton, 1960
Groder, Martin G. — Flushing, N.Y.
A.B., Columbia, 1960
Grollman, Evelyn F. — Dallas, Tex.
A.B., Sarah Lawrence, 1960
Hamilton, Lewis L. — Allison Park, Pa.
B.S., Yale, 1960
Hamilton, William G. — Madison, Wis.
B.S.E., Princeton, 1954
Hanger, Clay N. — Cleveland, Ohio
A.B., Princeton, 1957
Hart, Katherine — Denver, Colo.
A.B., Smith, 1960
Henriquez, Carlos L. — Yonkers, N.Y.
A.B., Columbia, 1960
Heroy, Ann C. — Sewickley, Pa.
A.B., Vassar, 1960
Hoyte, Arthur H. — Malden, Mass.
A.B., Harvard, 1960
Humphreys, Elaine E. — Dorset, Vt.
A.B., Radcliffe, 1960
Humphries, Robert H. — Short Hills, N.J.
B.S., Wheaton, 1960
James, William A. — Humboldt, Tenn.
A.B., Princeton, 1960
Jamison, Jane A. — Chatham, N.J.
A.B., Cornell, 1960
Johnson, David D., II — Charleston, W.Va.
A.B., Harvard, 1960
Kaplan, Alfred I. — New York City
A.B., Columbia, 1960
Kauderer, John G., Jr. — New York City
A.B., Columbia, 1959
Kirchner, Peter T. — Pierre, S. Dak.
A.B., Yale, 1960
Kistler, J. Philip — Tulsa, Okla.
A.B., Harvard, 1960
Kreiter, Richard L. — Davenport, Iowa
A.B., Grinnell, 1959
Langloh, Nikolaus D. — New York City
A.B., Columbia, 1960
Lawrence, William H., Jr. — San Francisco, Calif.
A.B., Princeton, 1960
Leventer, Leonard — Merrick, N.Y.
A.B., Columbia, 1960
Lewis, Robert D. — Briarcliff Manor, N.Y.
A.B., Princeton, 1960
Lipton, Richard A. — West Hempstead, N.Y.
A.B., Bethany, 1960
Lowenthal, Gilbert, Jr. — Braddock Hts., Md.
A.B., Brown, 1960
McCarthy, Joseph G. — Lowell, Mass.
A.B., Harvard, 1960
Marmar, Kenneth A. — Framingham Centre, Mass.
A.B., Harvard, 1960
Mayer, Eugene S. — Westfield, N.J.
B.S., Tufts, 1960
Mulliken, John B. — Minneapolis, Minn.
A.B., Princeton, 1960
Musgrave, Franklin S. — Marietta, Ohio
B.S., Syracuse, 1958
M.B.A., California at Los Angeles, 1959
A.B., Marietta, 1960
Nank, David R. — Mt. Clements, Mich.
A.B., Princeton, 1960
Ogawa, Robert T. — Oahu, Hawaii
A.B., Kenyon, 1960
Parsons, Charles P. — Ashland, Ky.
B.S., Cornell, 1960
Patt, Stephen L. — Elkins Park, Pa.
A.B., Harvard, 1960
Pietropinto, Anthony P. — New York City
A.B., New York University, 1960
Platnik, Bruce H. — Jamaica, N.Y.
A.B., Columbia, 1960
Poliakoff, Claude S. — Forest Hills, N.Y.
A.B., Columbia, 1960
Porter, Cedric W., Jr. — Wellesley Hills, Mass.
A.B., Harvard, 1960
Priestley, Joseph B., Jr. — Des Moines, Iowa
A.B., Yale, 1960
Rappaport, Lawrence N. — Great Neck, N.Y.
A.B., Harvard, 1960
Rechler, Matthew M. — Brooklyn, N.Y.
A.B., Harvard, 1960
Reid, Watson D. — Greenwich, Conn.
A.B., Yale, 1959
Reilly, John W. — Ft. Lee, N.J.
A.B., Columbia, 1960
Reiss, Ian M. — Brooklyn, N.Y.
A.B., Columbia, 1960
Reul, Charles G. — Westfield, N.J.
A.B., Princeton, 1960
Ricketts, Robert T. — Jackson, Tenn.
A.B., Vanderbilt, 1960

Robbins, Theodore B. — Gloucester, Mass.
A.B., Harvard, 1960
Rogal, Philip J. — Brooklyn, N.Y.
A.B., Princeton, 1960
Rosen, P. Peter — New York City
A.B., Swarthmore, 1960
Salomon, Peter F. — New York City
A.B., Harvard, 1960
Sananman, Michael L. — Brooklyn, N.Y.
A.B., Swarthmore, 1960
Schreiber, Ronald — New York City
A.B., Columbia, 1960
Spencer, Norman A. — Brooklyn, N.Y.
A.B., Amherst, 1960
Stein, Gary F. — Brooklyn, N.Y.
A.B., Union, 1960
Stilley, J. William — Homestead, Pa.
A.B., Princeton, 1960
Students, Ariana B. — Red Bank, N.J.
A.B., Stanford, 1960
Sundahl, C. Gerald — Bradford, Pa.
A.B., Princeton, 1960
Svahn, David S. — West Nyack, N.Y.
B.S., Massachusetts Institute of Technology, 1960
Takekoshi, Akemi — Pasadena, Calif.
A.B., Vassar, 1960
Taylor, Davida E. — Berkeley, Calif.
A.B., College of the Pacific, 1960
Turvey, B. Edward, Jr. — Dayton, Ohio
A.B., Oberlin, 1960
Vetter, William R. — Flushing, N.Y.
A.B., Amherst, 1960
Wang, Stephen F. — Brooklyn, N.Y.
A.B., Columbia, 1960
Webb, Charles A., Jr. — Baltimore, Md.
A.B., Trinity, 1960
Willner, Jeanne R. — New Hope, Pa.
B.S., Connecticut, 1960
Wilson, William R. — Mahwah, N.J.
A.B., Yale, 1960
Wolk, Michael J. — New York City
A.B., Colgate, 1960
Wood, Barry G. — New York City
A.B., Columbia, 1960
Wright, Geoffrey B. — Merrick, N.Y.
A.B., Harvard, 1960
Zamelis, Ansis — New York City
Zucker, Preston — New York City
A.B., Hamilton, 1960

Second Year: Class of June, 1964 118

STUDENTS ACCEPTED FOR THE CLASS OF 1965

Abelson, Roberta L. — Yonkers, N.Y.
A.B., Cornell, 1961
Ackley, Harry A. — Lancaster, Pa.
A.B., Franklin and Marshall, 1961
Bach, Robert D. — Wellesley Hills, Mass.
A.B., Princeton, 1960
Baker, John D. — Havana, Cuba
A.B., Haverford, 1960
Berger, Stephen M. — Philadelphia, Pa.
A.B., Princeton, 1961
Bergsma, Donald R. — North Haledon, N.J.
A.B., Calvin, 1961
Besdine, Richard W. — Bronx, N.Y.
A.B., Haverford, 1961
Biddle, Virginia — Oyster Bay, N.Y.
Blake, James H. — Syracuse, N.Y.
A.B., Syracuse, 1961
Bluming, Avrum Zvi — Maplewood, N.J.
A.B., Columbia, 1961
Bohnen, Robert F. — Albany, N.Y.
A.B., Syracuse, 1961
Borkenhagen, David M. — Columbus, Ohio
A.B., Harvard, 1961
Boyer, Ann M. — New York City
B.S., Columbia, 1961
Branscom, James J., Jr. — Piedmont, Calif.
A.B., Stanford, 1961
Bridger, Abraham A. — New York City
A.B., Yale, 1959
Brock, Donald J. — Buffalo, N.Y.
A.B., Yale, 1961
Brodie, Harlow K. H. — New Canaan, Conn.
A.B., Princeton, 1961
Brown, Norman D. — Flushing, N.Y.
A.B., Princeton, 1961
Bryant, Daniel C. — Cincinnati, Ohio
A.B., Princeton, 1961
Caplan, Harvey W. — Ellwood City, Pa.
A.B., Swarthmore, 1961
Caskey, William B. — Harrisburg, Pa.
A.B., Franklin and Marshall, 1961
Cole, James R. — Buffalo, N.Y.
A.B., Princeton, 1961
Condon, James J. — White Plains, N.Y.
A.B., Cornell, 1961
Cottrell, Thomas S. — San Francisco, Calif.
A.B., Brown, 1955
Davis, William J. — Forty Fort, Pa.
A.B., Wilkes, 1961
Delbanco, Thomas L. — Larchmont, N.Y.
A.B., Harvard, 1961
Deutsch, Harry — Rego Park, N.Y.
A.B., Yale, 1960
Edie, Richard N. — Yonkers, N.Y.
A.B., Princeton, 1959
Elting, James J. — Belleville, N.J.
A.B., Yale, 1961
Errico, Michael J. — Bloomfield, N.J.
A.B., Yale, 1961
Falk, Stephen — Brooklyn, N.Y.
A.B., Princeton, 1961
Faulk, James W. — Jamestown, N.Y.
A.B., Rochester, 1961
Finkelstein, Norman M. — New York City
A.B., Yale, 1961
Forester, Bruce M. — New York City
A.B., Dartmouth, 1960
Garfein, Oscar B. — New York City
A.B., Columbia, 1961
Ginsburg, Howard N. — Newton Centre, Mass.
A.B., Harvard, 1961
Glenn, Michael L. — Boston, Mass.
A.B., Princeton, 1959
M.A., Harvard, 1960
Goldreyer, Bruce N. — New York City
A.B., Amherst, 1961
Haase, Ashley T. — Crystal Lake, Ill.
A.B., Lawrence, 1961
Hadden, John W. — Cold Spring Harbor, N.Y.
A.B., Yale, 1961
Hale, Stanton D. — Darien, Conn.
A.B., Princeton, 1959
Hamada, Paul M. — New Rochelle, N.Y.
A.B., Yale, 1961
Harris, Susan R. — New York City
A.B., Michigan, 1961
Hertz, Philip — New York City
A.B., Cornell, 1961
Hirsh, David I. — Houston, Tex.
A.B., Reed, 1961
Horan, Anthony H. — New York City
A.B., Dartmouth, 1961
Iseman, Michael D. — Fremont, Neb.
A.B., Princeton, 1961
Jainchill, John L. — New York City
A.B., Columbia, 1961
Johnson, Eric H. — Muskogee, Okla.
A.B., Harvard, 1961
Keyser, John J. — Arlington, Va.
A.B., Princeton, 1961
Kuehner, Charles R. — Ft. Thomas, Ky.
S.B., Massachusetts Institute of Technology, 1958
Labarthe, Darwin — Honolulu, Hawaii
A.B., Princeton, 1961
Lambert, Brent W. — Atherton, Calif.
A.B., Harvard, 1961
Lee, Keat-Jin — Malaya
A.B., Harvard, 1961
Levy, Jay A. — Wilmington, Del.
A.B., Wesleyan, 1960
Lisak, Robert P. — Brooklyn, N.Y.
A.B., New York University, 1961
Lopano, Angelo J. — New York City
A.B., Fordham, 1961
Luhrmann, George W., Jr. — Dayton, Ohio
S.B., Massachusetts Institute of Technology, 1956
M.S., Massachusetts Institute of Technology, 1957
Lyden, John P. — New Canaan, Conn.
A.B., Harvard, 1961
MacFarland, Joseph A. — Elmont, N.Y.
B.S., Manhattan, 1961
MacLean, William A. H. — Huntington, N.Y.
B.S., Yale, 1961
MacMillan, Roger W. — Schenectady, N.Y.
B.S., Trinity, 1961
Mallis, George I. — Cedarhurst, N.Y.
A.B., Harvard, 1961

Mattern, William D. Kenmore, N.Y.
A.B., Hamilton, 1961
Mayer, Paula L. New York City
A.B., Radcliffe, 1961
McCullough, William B. New York City
A.B., Whitworth, 1953
B.D., Princeton Theological Seminary, 1956
Merey, John H. Forest Hills, N.Y.
A.B., Union, 1961
Miller, Jacob D. New York City
A.B., Harvard, 1961
Mooney, James K., Jr. Nyack, N.Y.
A.B., Yale, 1961
Murray, Thomas M. New York City
A.B., Georgetown, 1961
Myerson, Daniel A. West Hartford, Conn.
B.S., Trinity, 1961
Myerson, Paul J. West Hartford, Conn.
B.S., Trinity, 1961
Nape, William J. New Orleans, La.
A.B., Johns Hopkins, 1961
Nenninger, Robert H. New York City
A.B., Columbia, 1961
Ng, Keng-Yong Singapore, Malaya
A.B., Stanford, 1961
O'Brien, Richard T. New York City
A.B., Columbia, 1961
O'Connor, Ronald W. Scarsdale, N.Y.
B.S., Yale, 1961
Oparil, Suzanne Elmira, N.Y.
A.B., Cornell, 1961
Pan, Shirley N.-H. Hong Kong
A.B., Wellesley, 1961
Pearl, Jon S. Hampton, Va.
A.B. Duke, 1961
Perkins, Richard P. Montpelier, Vt.
A.B., Hamilton, 1961
Peterson, Lynn M. Chicago, Ill.
A.B., St. Olaf, 1961
Portnoy, Barry F. New York City
A.B., New York University, 1961
Price, Ronald L. Pittsburgh, Pa.
A.B., Oberlin, 1961
Ratzan, Sanford A. New York City
A.B., Hamilton, 1961
Redmond, Paul C. Columbus, Ohio
B.S., Denison, 1961
Reichek, Nathaniel New York City
A.B., Columbia, 1961
Rofman, Samuel E. New York City
A.B., Columbia, 1961
Rose, Stuart R. New York City
A.B., Amherst, 1960
St. John, Ronald K. Marietta, Ga.
A.B., Yale, 1961
Schachter, Michael B. Cranford, N.J.
A.B., Columbia, 1961
Schreiber, Robert F. Grosse Pointe Park, Mich.
A.B., Harvard, 1961
Schuker, Eleanor S. New York City
A.B., Swarthmore, 1961
Schurman, David J. Highland Park, Ill.
A.B., Yale, 1961
Shulman, Michael G. Paterson, N.J.
A.B., North Carolina, 1961
Siegal, Frederick P. New York City
A.B., Cornell, 1961
Simmons, Barry P. Brookline, Mass.
A.B., Harvard, 1961
Singer, Kenneth M. Sac City, Iowa
S.B., Massachusetts Institute of Technology, 1961
Slaton Scheidt, Stephen M. New York City
A.B., Princeton, 1960
Sobol, Samuel M. S. Orange, N.J.
A.B., Yale, 1961
Spiegel, Dorothy E. New York City
A.B., Vassar, 1961
Stachura, Maximillian E. Buffalo, N.Y.
A.B., Hamilton, 1961
Stanley, Theodore H. New York City
A.B., Columbia, 1961
Steel, Richard K. New York City
A.B., Yale, 1961
Stern, Lawrence Z. New York City
A.B., Columbia, 1961
Stewart, Michael MacC. Princeton, N.J.
A.B., Princeton, 1957
Symington, Diana G. New Hyde Park, N.Y.
Thompson, Richard H., Jr. Salem, Mass.
B.A., Harvard, 1960
Urbach, Jim I. South Orange, N.J.
A.B., Williams, 1961
Wallace, Richard C. Brookline, Mass.
A.B., Yale, 1960
Waters, George H. Marshfield, Wis.
A.B., Princeton, 1961
Weingarten, Peter L. New York City
A.B., Yale, 1961
Weintraub, Joel Caldwell, N.J.
A.B., Columbia, 1961
Weld, Francis M. Smithtown, N.Y.
A.B., Harvard, 1961
Wlodkoski, Joan H. Manchester, N.H.
B.S., New Hampshire, 1961
Yvars, Manuel F. New York City

CONDENSED ACADEMIC CALENDAR

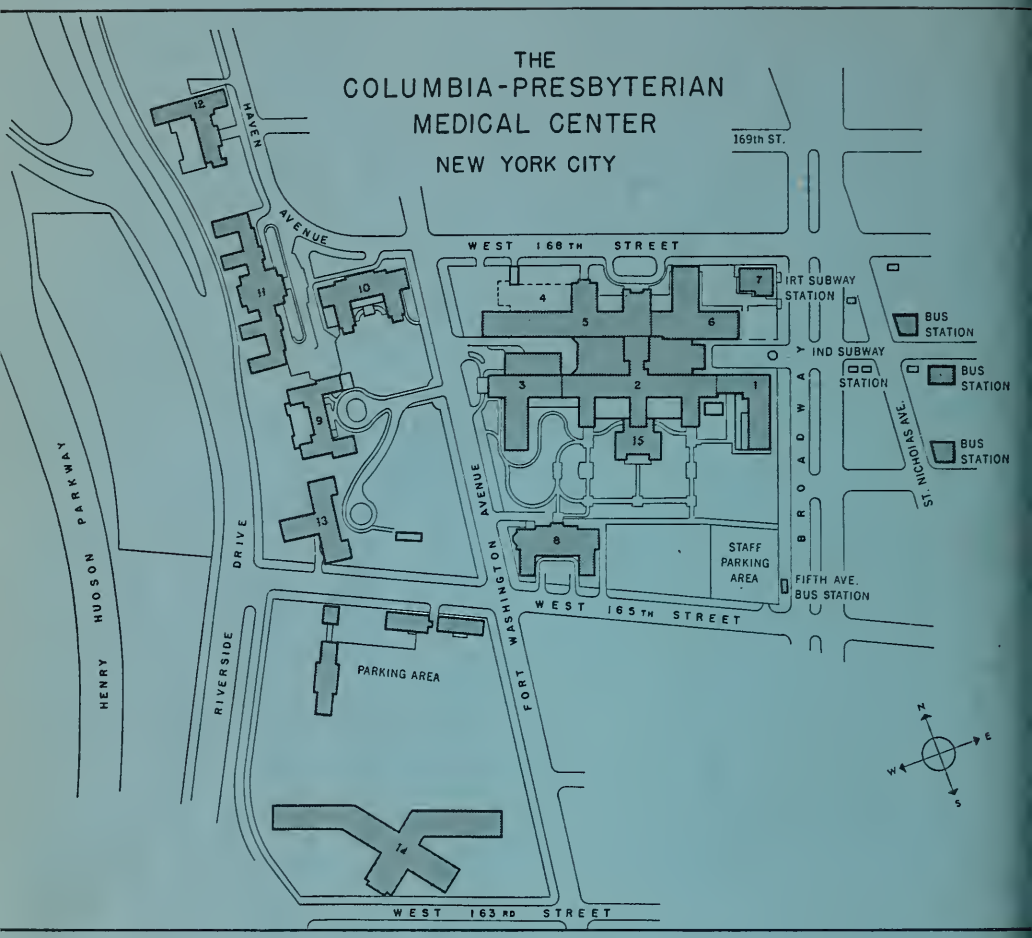
The complete Academic Calendar for the year 1961-1962 may be obtained from the Secretary of the University.

1961

May	18	Thursday, through May 19, Friday. Registration (including payment of comprehensive fee) for the Third- and Fourth-Year Classes.
June	**1**	**Thursday. New academic year begins for the Fourth-Year Class.**
June	5	Monday. New academic year begins for the Third-Year Class.
August	1	Tuesday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
September	7	Thursday, through September 9, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
September	**11**	**Monday. Classes begin.**
October	5	Thursday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D., to be awarded in October.
November	7	Tuesday. Election Day. Holiday.
November	23	Thursday. Thanksgiving Day. Holiday.
December	1	Friday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
December	**18**	**Monday, through**

1962

January	**1**	**Monday. Christmas holidays.**
February	1	Thursday. Last day for filing application for Cutting and Ellis Fellowships.
February	22	Thursday. Washington's Birthday. Holiday.
March	1	Thursday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in June. The privilege of later application may be granted on payment of late fee.
March	3	Saturday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
April	**16**	**Monday, through April 21, Saturday. Easter holidays.**
May	30	Wednesday. Memorial Day. Holiday.
June	**5**	**Tuesday. Conferring of degrees.**



1. BABIES HOSPITAL
2. PRESBYTERIAN HOSPITAL
   N. Y. ORTHOPAEDIC HOSPITAL
   SLOANE HOSPITAL
   SQUIER UROLOGICAL CLINIC
3. HARKNESS PAVILION
4. POWER HOUSE
5. COLLEGE OF PHYSICIANS AND SURGEONS
6. VANDERBILT CLINIC
   SCHOOL OF DENTAL AND ORAL SURGERY
7. N. Y. CITY DEPT. OF HEALTH
   SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE
8. INSTITUTE OF OPHTHALMOLOGY
9. MAXWELL HALL
10. NEUROLOGICAL INSTITUTE
11. N. Y. STATE PSYCHIATRIC INSTITUTE
12. BARD HALL
13. HARKNESS MEMORIAL HALL
14. FRANCIS DELAFIELD HOSPITAL, N.Y.C.
15. PAULINE A. HARTFORD MEMORIAL CHAPEL

Columbia University Bulletin

SERIES 62 NUMBER 32 AUGUST 11, 1962

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THE FACULTY OF MEDICINE

Columbia University.
College of Pts.
Announcement.

College of Physicians & Surgeons

1962-1963

Inquiries

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630 WEST 168TH STREET
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The Faculty of Medicine of Columbia University

College of Physicians & Surgeons

1962-1963

Grayson Kirk, Ph.D., LL.D. *President of the University*

Lawrence H. Chamberlain, Ph.D., LL.D. *Vice President of the University*

Jacques Barzun, Ph.D. *Dean of Faculties and Provost of the University*

H. Houston Merritt, M.D. *Vice President in Charge of Medical Affairs; Dean of the Faculty of Medicine*

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Academic Calendar, 1962-1963

May	**17–18**	Thursday-Friday. Registration, including payment of comprehensive fee, for third- and fourth-year classes.
Jun	**4**	**Monday. Academic year begins for third- and fourth-year classes.**
Aug	**1**	Wednesday. Last day for filing application, or renewal of application, for all degrees and certificates to be conferred in October. Students who file application after this date must pay a late fee.
Sep	**6–8**	Thursday-Saturday. Registration, including payment of fees, for first- and second-year classes.
	10	**Monday. Classes begin for first- and second-year classes.**
Oct	**5**	Thursday. Last day for filing dissertations for the Med.Sc.D. degree to be awarded in October.
Nov	**6**	Tuesday. Election Day. Holiday.
	22	Thursday. Thanksgiving Day. Holiday.
Dec	**1**	Saturday. Last day for filing application, or renewal of application, for all degrees and certificates to be awarded in February. Students who file application after this date must pay a late fee.
	17	**Monday, through January 1, Tuesday. Christmas Holidays.**
Feb	**1**	Thursday. Last day for filing application for Cutting and Ellis Fellowships.
	22	Friday. Washington's Birthday. Holiday.
Mar	**1**	Friday. Last day for filing application, or renewal of application, for all degrees and certificates to be conferred in June. Students who file application after this date must pay a late fee.
	2	Saturday. Last day for filing dissertations for the Med.Sc.D. degree to be conferred in June.
Apr	**8–13**	**Monday-Saturday. Easter Holidays.**
May	**30**	Thursday. Memorial Day. Holiday.
Jun	**4**	**Tuesday. Conferring of degrees.**

The Faculty of Medicine

Grayson Kirk, Ph.D., LL.D. *President of the University*

Lawrence H. Chamberlain, Ph.D., LL.D. *Vice President of the University*

Jacques Barzun, Ph.D. *Dean of Faculties and Provost of the University*

H. Houston Merritt, M.D. *Vice President in Charge of Medical Affairs and Dean of the Faculty of Medicine*

Aura E. Severinghaus, Ph.D., Sc.D., L.H.D.* *Associate Dean and Secretary of the Faculty*

George A. Perera, M.D. *Associate Dean and Secretary of the Faculty*

Ray E. Trussell, M.D. *Associate Dean (Public Health)*

Elizabeth S. Gill, M.A. *Associate Dean (Nursing)*

Melvin D. Yahr, M.D. *Assistant Dean*

Ralph W. Richter, M.D. *Assistant Dean*

Hattie E. Alexander
Arnold L. Bachman
Frederick R. Bailey
James Bordley III
Stanley E. Bradley
Harold W. Brown
Stanley M. Bysshe
Malcolm B. Carpenter
Sidney Carter
Nicholas P. Christy
Wilfred M. Copenhaver
George F. Crikelair
Edward C. Curnen, Jr.
Robert C. Darling
D. Anthony D'Esopo
A. Gerard DeVoe
Herbert O. Elftman
Robert H. E. Elliott, Jr.
Jose M. Ferrer, Jr.
John W. Fertig
Alfred P. Fishman
Thomas P. Fleming
Edmund P. Fowler, Jr.
Leonard J. Goldwater
David V. Habif
Herman E. Hilleboe
William A. Horwitz
Calderon Howe
George H. Humphreys II
Elvin A. Kabat
M. Ralph Kaufman
Yale Kneeland, Jr.
Lawrence C. Kolb
Raffaele Lattes
John K. Lattimer
Tiffany Lawyer, Jr.
John H. McClement
Donald G. McKay
Paul A. Marks
Carl T. Nelson
Charles R. Noback
Emanuel M. Papper
J. Lawrence Pool
Milton R. Porter
John H. Powers
Charles A. Ragan
David Rittenberg
Walter S. Root
Harry M. Rose
William B. Seaman
David Seegal
David Shemin
George K. Smelser
Hamilton Southworth
Warren M. Sperry
Frank E. Stinchfield
John V. Taggart
Howard C. Taylor
Harry B. van Dyke
Carmine T. Vicale
William W. Walcott
Shih-Chun Wang
Abner Wolf
Robert H. Wylie

* On leave, academic year.

COMMITTEES

ADMINISTRATION	Dean Merritt (*chairman*); Professors Bradley, Copenhaver, Curnen, Humphreys, Kolb, McKay, Rittenberg, Rose, Seaman, Taggart, Taylor, Trussell, and van Dyke; Associate Dean Perera; Assistant Deans Richter and Yahr; Mr. Binkert
ADMISSIONS	Associate Dean Perera (*chairman*); Professors Bailey, Carpenter, Cooper, Elftman, Flood, Frantz, Kneeland, Lamb, Richter, D. Seegal, Severinghaus (*consultant*), and Wylie; Dean Merritt (*ex officio*)
INSTRUCTION	Associate Dean Perera (*chairman*); Professors Bradley, Copenhaver, Curnen, Humphreys, Kolb, McKay, Richter, Rittenberg, Rose, Seaman, Taggart, Taylor, Trussell, and van Dyke; Dean Merritt (*ex officio*)
GRADUATE CLINICAL INSTRUCTION	Assistant Dean Yahr (*chairman*); Professors Bradley, Copenhaver, Curnen, DeVoe, Fowler, Horwitz, Humphreys, McKay, Papper, Perera, Richter, Rittenberg, Rose, Seaman, Stinchfield, Taggart, and Taylor; Dean Merritt (*ex officio*)

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Professor Stinchfield (1964) and Associate Dean Perera (1965)

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The College of Physicians and Surgeons

The College of Physicians and Surgeons is guided by the principle that medical education is university education—the creation of an atmosphere in which ideas grow and minds are disciplined. The acquisition of knowledge and skills is important in professional education, but far more vital is a profound understanding of the science, the art, and the ethic within which both knowledge and skill are applied. As a part of Columbia University, the College builds its curriculum, selects its officers of instruction, and marshals its enormous resources of equipment and clinical experience to develop in the student this understanding of medicine. Within the curriculum for the M.D. degree is the fundamental knowledge upon which later specialization is built, and from which the natural bent is discovered toward general or special practice, or toward research, teaching, or administration. The postgraduate programs of the College provide training in the specialties, help the graduate physician to keep abreast of new knowledge, and support the research from which this knowledge develops.

HISTORY OF THE COLLEGE AND THE UNIVERSITY

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the college was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the College on the same basis as men.

Columbia-Presbyterian Medical Center

The Medical Center was opened in the spring of 1928, seven years after the establishment of a permanent affiliation between Columbia University and the Presbyterian Hospital. It consists of the following units: the divisions of the University's Faculty of Medicine (the College of Physicians and Surgeons, the Department of Nursing, the School of Public Health and Administrative Medicine); the University's School of Dental and Oral Surgery; the Presbyterian Hospital and its subdivisions; the New York State Psychiatric Institute; Francis Delafield Hospital; and the Washington Heights Health and Teaching Center.

The Medical Center occupies a plot of land given to Columbia University and the Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. It comprises about twenty acres extending from West 165th Street to West 168th Street and from Broadway to Riverside Drive, and is readily accessible from all parts of the city. A map of the Medical Center is given on the inside back cover.

The College of Physicians and Surgeons is at 630 West 168th Street between Broadway and Fort Washington Avenue in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor of which connects with the wards and services of the Presbyterian Hospital.

THE PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Presbyterian Hospital has the following subdivisions:

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and twenty beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The Hospital and laboratories for the study of diseases of the

eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors of the Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the College, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 201 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 106 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the College. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the College.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 172-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergraduate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,729 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 325 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,376 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains eighty-eight research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 100 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 643 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of forty-two beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,032 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate in-

struction, particularly for physicians in general practice and for undergraduate work in pediatrics and obstetrics. There are 511 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 452 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 561 beds, including sixty-two beds for children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

MEDICAL LIBRARY

The Medical Library occupies parts of the three lower floors in the College building. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately 250,000 volumes of books and journals, some 5,000 pamphlets, and about 2,000 lantern slides on the history of medicine. More than 3,600 periodicals are received regularly. A professional library staff is available to aid students, faculty members, and research workers in the schools and hospitals of the Medical Center.

The libraries on the Morningside campus, which contain some three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use. The main collection is housed in Butler Library, while special and departmental collections are located in various other buildings on the campus.

The Medical Library is open Monday through Friday, from 8:30 a.m. to 11 p.m.; Saturday, from 9 a.m. to 5 p.m.; and Sunday, from 2 p.m. to 10 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, at 50 Haven Avenue overlooking Riverside Park and the Hudson River, is the residence for men and women students of the College. Its facilities include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The Program of Instruction

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, and in other fields of medical endeavor.

FIRST AND SECOND YEARS

The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and in the course of psychiatry, the students become aware that the welfare and care of the patient lie at the heart of the instructional program. The first year is designed to prepare the student, through an introduction to genetics, through the development and growth of the mind and body, and through an understanding of biochemistry, for the examination of the structure and function of the human body.

THIRD AND FOURTH YEARS

The third and fourth years are largely clinical. Under close supervision, the student is helped to develop attitudes, skills, knowledge, and habits applicable to a wide variety of clinical disorders. The primary educational aims are to help the student to elicit an accurate and comprehensive history, to carry out complete and thorough physical examinations, to develop an understanding of the mechanisms involved and of the various ways in which common patterns of disease affect the human being, to learn the principles necessary to reach valid clinical and diagnostic appraisals and effective therapeutic plans, and to acquire consideration and perceptiveness in the handling of patients. To this end, the clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are particularly valuable. The fourth year, in which the student is given increased responsibilities, is especially concerned

with the natural history of disease, further understanding of the impact of disease on the patient, and the management of patients.

RESEARCH OPPORTUNITIES

The importance of original investigation by the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years. During their third and fourth years they may arrange programs to enable them to do full-time research for periods as long as six months. After completion of the first year, or preferably between the second and third years, a student who has made outstanding progress in his research may make arrangements to spend a full year on his original investigation rather than proceed with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

► COURSES OF INSTRUCTION AND RESEARCH

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods. The academic year for the first- and second-year students is approximately nine months long; the third and fourth years are twelve months long.

All students who are not regularly matriculated for the degree of Doctor of Medicine must obtain the permission of the instructor in charge before registering for any course.

The College reserves the right to make changes in the program of studies and courses of instruction at any time.

GRADES AND PROMOTION

The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

A student may be advanced to the next academic year of the medical course or readmitted to a year only upon recommendation of the faculty under which he studied during the previous year. Students are classified under the following headings: 1) recommended for advancement; 2) recommended for readmission to the same class; 3) recommended for neither advancement nor readmission. The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in the College.

KEY TO COURSE NUMBERS

Medical Center courses: The suffixes *F, S, T,* and *Fo* are attached to first- and second-year courses; they indicate the part of the academic year during which the courses are given: $F = 1$st period or trimester; $S = 2$d period or trimester; $T = 3$d period or trimester; $Fo = 4$th period.

A three-digit number with no suffix indicates a third- or fourth-year course covering a period of six months or less; two hyphenated three-digit numbers indicate a third- or fourth-year course extending or being repeated to multiple-class groups for a period of more than six months.

Graduate Faculties courses (electives only): These are indicated by the prefix *G*. The suffix *x* indicates an autumn-term course; the suffix *y*, a spring-term course; two hyphenated numbers, a course that runs through the academic year (nine months).

Summer Session courses (electives only): These are indicated by the prefix *S*. The suffix *G* indicates a course given in the six-week graduate-undergraduate session.

FIRST YEAR

Anatomy 101F. Microscopic anatomy

Professors Copenhaver, Pappas, Shen, and Smelser; Dr. Trotter; and assistants.

Lectures, conferences, and laboratory.

Anatomy 102ST. Systematic human anatomy

Professors Agate, Bunge, Elftman, Ely, Moss, Rogers, and assistants.

Lectures, conferences, and laboratory.

Anatomy 103FSTFo. Statistics-genetics-embryology

An interdepartmental committee.

An interdepartmental course: lectures, demonstrations, and laboratory work on statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106TFo. The structure and function of the nervous system

Professors Carpenter and Noback (*Anatomy*), Rittenberg and Waelsch (*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

An interdepartmental course: lectures, demonstrations, and laboratory.

Biochemistry 101F. Introductory biochemistry

The departmental staff. Three hours of lecture and twelve hours of laboratory a week for fourteen weeks.

Special reference to the animal organism.

Pathology 101FST. General and special pathology

Professors McKay and Spiro and the departmental staff.

Study of the important disease processes by means of demonstrations, autopsies, conferences, and case study, and by the use of fresh specimens and museum specimens and a very complete series of histological specimens.

The course is continued in the first and second trimesters of the second year.

Physiology 101STFo. Human physiology

Members of the departmental staff. Three hours of lecture, one hour of conference, and twelve hours of laboratory a week.

Psychiatry 101FST. Introduction to human behavior

Professors Kolb, Bruch, and Dunton. Thirty one-hour lectures and small group seminars.

The genetic, family, and cultural processes underlying healthy behavior; the nature of anxiety; the psychological methods of adaptation to anxiety; and the processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout.

Public Health 103FSTFo. Statistics

Professor Fertig. Three hours a week for five weeks.

Part of *Anatomy 103FSTFo.*

SECOND YEAR

Medicine 101T. Elementary physical diagnosis

Professor Kneeland and associates. Eight hours a week for ten weeks.

Medicine 102T. Elementary clinical pathology

Professor Marks and associates. Eight hours a week for eleven weeks.

Emphasis is placed on morphology, genetics, biochemistry, and physiology in considering problems in clinical medicine; instruction in certain specific laboratory techniques for examination of blood, urine, and other clinical material.

Medicine 103S. Introduction to experimental medicine

Professor Fishman. Two hours a week for two weeks.

Medicine 104T. Introductory medicine

Professor Bradley and associates. One hour a week for ten weeks.

Microbiology 101F. General medical microbiology and immunology

Members of the departmental staff. Thirteen hours of laboratory, conference, demonstration, and problems.

Microbiology 105F. The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases

Members of the departmental staff. Six hours of lecture and demonstration.

Neurology 101T. Introduction to clinical neurology

Professors Merritt and Vicale. Two hours of lecture and demonstration a week for ten weeks.

Neurological examination, anatomical, physiological, and pathological correlations.

Obstetrics and Gynecology 102T. Introduction to obstetrics and gynecology

Members of the departmental staff. Two hours of lecture.

General clinical lectures. Presentation of basic principles in the physiology of human reproduction in relation to clinical manifestations of ovulation, fertilization, and pregnancy.

Pathology 101FST. General and special pathology

Professors McKay and Spiro and the departmental staff.

Continued from the first year.

Pathology 102S. Neuropathology

Professors Cowen and Wolf and the departmental staff. Three hours of lecture and laboratory a week for ten weeks.

Pharmacology 101FS. General and special pharmacology

The departmental staff. One hour of lecture or conference a week, first trimester; four hours of lecture or conference and six hours of laboratory a week, second trimester.

Psychiatry 102T. Psychopathology

Professors Carr, Frazier, and Thetford. Twenty one-hour lectures and demonstrations. Audio-visual aids are used.

Public Health 101F. An introduction to preventive medicine and public health

Professor Brown. One hour a week for eleven weeks.

Public Health 101T. Parasitic diseases: the protozoa, helminths, and arthropods of medical significance

Professor Brown and the departmental staff. Five hours of lecture, laboratory, and demonstration.

Surgery 101S. Introduction to surgery

Professors Humphreys, Lattes, and the departmental staff. One hour a week for eleven weeks.

Surgery 102T. Recitations, demonstrations, and clinic in principles of surgery

Professors Lattes, Wiedel, and the departmental staff. Six hours a week for ten weeks.

THIRD YEAR

Anesthesiology 201. Lectures

Professor Papper and the departmental staff. Four one-hour lectures.

Anesthesiology 204S. Seminars in anesthesiology, including practical demonstrations of anesthetic methods

Professor Papper and the departmental staff. Four hours a week for five and one-half weeks.

Part of *Surgery 204–205.*

Dermatology 203–204. Dermatology and syphilology

Professors Barker and Nelson and associates. Two introductory lectures, one symposium (on common dermatoses), and eleven three-hour demonstration sessions. At Vanderbilt Clinic.

Medicine 201–202. Ward clinical clerkship in medicine

Professor Tapley (*in charge*). Eleven weeks.

Medicine 203–204. Medical lectures

Professor Tapley and associates. One hour a week for twenty-eight weeks.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206. Combined clinics

Professor Christy and associates. One and one-half hours a week for thirty weeks.

Continued through the fourth year.

Neurology 207–208. Neurology: examination of the patient and interpretation of finding

Members of the staffs of Neurological Institute and Montefiore Hospital. Ten three-hour afternoon sessions for two and one-half weeks. At Neurological Institute and Montefiore Hospital.

Neurology 209–210. Neurology: the diseases of the nervous system

Professor Merritt and the departmental staff. Eight one-hour lecture and demonstration sessions.

Obstetrics and Gynecology 201–202. Theory and practice of obstetrics and gynecology

The departmental staff. Forty-six hours of lecture and demonstration.

Topics covered include: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology; and diagnosis of gynecological conditions.

Ophthalmology 201–202. Practical instruction in ophthalmology

The departmental staff. Fifteen hours a week for two weeks. At Vanderbilt Clinic and the Institute of Ophthalmology.

Ophthalmology 203–204. Clinical lectures on the diseases of the eye

The departmental staff. Twelve one-hour lectures.

Orthopedic Surgery 201–202. Lectures on orthopedic surgery

Professor Stinchfield and the departmental staff. One hour a week for ten weeks.

Orthopedic Surgery 203–204. Practical instruction in orthopedic surgery, including fractures and dislocations

Professors Stinchfield and McLaughlin and the departmental staff. Thirty hours of seminar and thirty hours in clinics and wards, for two and one-half weeks.

Combined with *Surgery 204–205*.

Otolaryngology 201–202. Practical instruction in the diseases of the ear, nose, and throat

Professors Altmann, Fowler, Tonndorf, and Waltner; Dr. Whitfield; and the departmental staff. Ten three-hour sessions. At Vanderbilt Clinic.

Otolaryngology 203. Lectures

Professor Fowler and the departmental staff. Ten one-hour sessions.

Pediatrics 201–202. Introduction to pediatrics

Professors Curnen and Alexander and associates. Five and one-half weeks. At Babies Hospital and Vanderbilt Clinic.

Designed to orient the student in the study of diseases of infants and children, of normal growth and development, and of maintenance of health.

Pediatrics 207–208. Bedside instruction in the common communicable diseases
Members of the departmental staff. Two two-hour sessions. At Bellevue Hospital.

Psychiatry 203–204. Clinical psychiatry
Professors Gidro-Frank, Horwitz, Kesselbrenner, Langford, and R. MacKinnon; Dr. Polatin; and clinical faculty. Fifteen hours of clinical conferences and twelve hours a week of clinical clerkships for eleven weeks. At the New York State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital.

Public Health 203–204. Preventive and administrative medicine
Professor Goldwater and the departmental staff. Six hours a week for eleven weeks.
Lectures, seminars, and field work in public health and medical care.

Public Health 205. Forensic medicine and medical jurisprudence
The departmental staff. One hour of lecture a week for eleven weeks.

Public Health 206. Special topics in public health
The departmental staff. One hour a week for eight weeks.

Radiology 201–202. Diagnostic radiology
Professors Ellis, Schlaeger, and Seaman. One hour a week for eleven weeks.
Lecture topics include the principles of the roentgenographic examination of the heart, lungs, and gastrointestinal tract.

Radiology 205. X-ray interpretation
Professors Schlaeger, Seaman, and Finby. Three hours of conference a week for two months.

Radiology 206. Biologic effects of ionizing radiation
Professors Jacox and Tapley. Four one-hour lectures.

Surgery 201–202. Surgery lectures
Professor Humphreys and the departmental staff. One hour a week for twenty-three weeks.

Surgery 204–205. Surgery, general and traumatic, and anesthesia
Professors Humphreys (*Surgery*), Stinchfield (*Orthopedic Surgery*), and Papper (*Anesthesiology*), and the departmental staffs. Five days a week for six weeks.
Includes *Surgery 211–212, Orthopedic Surgery 203–204,* and *Anesthesiology 204S.*

Surgery 211–212. Practical instruction in surgical pathology
Professor Lane. Two hours a week for five and one-half weeks.
Combined with *Surgery 204–205.*

FOURTH YEAR

Anesthesiology 213S. Clinical clerkship
Professor Papper and the departmental staff. One week.
Practical anesthesia in the operating rooms of Presbyterian Hospital, with a preceptor. *Part of Surgery 213–214.*

Dermatology 205–206. Dermatology and syphilology

Professors Miller and Nelson; Drs. Chester, Gore, and Hearin; and associates. Seven hours a week for one month.

Medicine 205–206. Combined clinics

Professor Christy and associates. One and one-half hours a week for thirty weeks.

Continued from the third year.

Medicine 207–208. Outpatient clinical clerkships (group clinic)

Professor Lamb (*in charge*). Two months.

Combined with *Surgery 209–210.*

Medicine 209–210. Medical therapeutics and applied pharmacology

Professors Southworth (*in charge*) and Hofmann (*Pharmacology*). One lecture a week for sixteen weeks.

Given with *Pharmacology 202.* May be taken in the third year as an elective.
Practical management, including home care, of major medical problems; review of the pertinent pharmacology.

Medicine 221–222. Clinical clerkships on the wards at Bellevue Hospital

Professor Ragan and associates.

Students may substitute *Surgery 217–218* for this course.

Medicine 223–224. Clinical clerkships in chronic diseases of the chest at Bellevue Hospital

Professor McClement and associates.

Medicine 225–226. Medical and surgical conferences at Bellevue Hospital

Professors Ragan and Ferrer (*Surgery*) (*in charge*).

Neurology 202. Clinical lectures and demonstrations in neurology

Professors Merritt, Pool, and Vicale. One and one-half hours a week for twenty weeks.

Obstetrics and Gynecology 203–204. Practical work in obstetrics and gynecology

Members of the departmental staff.

The practical work in the obstetrics and gynecology class is given in six sections, each section receiving eight and one-half weeks of instruction. During this period each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women:* Day and night duty; lodging furnished by the hospital. Ward rounds, quizzes, mannikin demonstrations, and actual delivery of patients, conducted under the direction of the attending staff of the hospital.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic:* Prenatal and postnatal clinics. Preoperative and postoperative care of gynecological patients, plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women:* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

Orthopedic Surgery 205–206. Practical instruction in orthopedic surgery, including fractures and dislocations

Professors Stinchfield and McLaughlin and the departmental staff. Twenty-four hours: fourteen of seminar, ten in clinics and wards.

Pediatrics 203–204. Clinical clerkships in pediatrics

Professors Curnen and Mellin and associates. One month. At Babies Hospital.

Pharmacology 202. Medical therapeutics and applied pharmacology

Professors Hofmann and Southworth (Medicine). One conference a week for sixteen weeks.

The same course as *Pharmacology G8002y*.
Given with *Medicine 209–210*. May be taken in the third year as an elective.
Practical management, including home care, of major medical problems; review of the pertinent pharmacology.

Psychiatry 205. Clinical psychiatry: principles and practice of psychotherapy for medicine

Drs. D. Kornfeld and G. Wilkie and clinical faculty. One and one-half hours a week for ten weeks.

Discussions; demonstrations of short-term psychotherapy by a member of the faculty, using closed circuit television; weekly seminars; supervision in psychiatric aspects of medical practice in group medical clinic.

Radiology 203–204. X-ray interpretation

Professors Alpert, Baker, Seaman, Taveras, and Wells. Four hours of conference a week for four weeks.

Surgery 209–210. Outpatient clinical clerkships

Professor Humphreys and the departmental staff. Two months.

Combined with *Medicine 207–208*.

Surgery 213–214. Clinical clerkship in surgery

Professor Humphreys and the departmental staff. Five days a week for two months. At Presbyterian, Roosevelt, St. Luke's, or Mary Imogene Bassett Hospital.

Surgery 217–218. Clinical clerkships at Bellevue Hospital

Professor Ferrer and assistants.

Students may substitute *Medicine 221–222* for this course.

Urology 201–202. Clinical clerkships in urology in the Squier Urological Clinic

Professor Lattimer and the departmental staff.

Lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, roentgen diagnosis, and pathological demonstrations. Patients are studied on the wards. Term paper required.

ELECTIVES

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses; as a rule, they may be taken only in the third and fourth years. Students may arrange for electives at the beginning of any period and will be held responsible for attendance and the passing of examinations. Elective courses may not, ordinarily, be credited toward the degree. However, specially qualified students in the fourth-year class may, upon nomination by the head of a department and with the permission of the Committee on Instruction, substitute elective courses or research in that department for certain prescribed courses.

Additional courses in the basic medical sciences are offered under the Faculty of Pure Science; see the bulletin of the Graduate Faculties.

For information about graduate courses in dermatology, neurology, otolaryngology, and surgery, consult the office of the Dean.

ANATOMY: SUMMER SESSION 1962

Anatomy S4001G. Introduction to human anatomy

Professor Ely and assistant. July 2–August 10. MTuWThF 2–5. Second year.

Structure and function of the human body. Laboratory study of the dissected body, with accompanying lectures and demonstrations.

Anatomy S4007G. Microscopic anatomy

Professor Noback and Dr. Brandt. July 2–August 10. MTuWThF 9–12. Second year.

An introductory course in general histology, dealing with the structure and function of the tissues and organs of the body, based largely on the study of human material.

ANESTHESIOLOGY

Anesthesiology 201. Practical anesthesiology in Presbyterian Hospital

Professor Papper and the departmental staff. Six or twelve weeks. Third year.

Limited to three students.

Anesthesiology 212. Research in anesthesiology

Professors Papper and Nahas and the departmental staff. Hours to be arranged. Third and fourth years.

Limited to two students.

BIOCHEMISTRY

Biochemistry G6011x–G6012y. Special methods of biochemistry

The departmental staff. Hours to be arranged. Third and fourth years.

Eligibility to be determined on consultation.
Study and discussion intended to prepare the student for research or practical application.

Biochemistry G6028. Enzymes. The staff. Not given in 1962–1963.

Biochemistry G6030y. Chemistry and biochemistry of the carbohydrates

The departmental staff. Two hours to be arranged. Third and fourth years.

Prerequisite: the permission of the department.
Chemistry of the monosaccharides and their derivatives; configuration and conformation. Some naturally occurring polysaccarides; methods of isolation and characterization.

Biochemistry G6032. Nucleic acids. The staff. Not given in 1962–1963.

Biochemistry G6034. The proteins. The staff. Not given in 1962–1963.

Biochemistry G8040y. Introduction to x-ray crystallography

Professor Low. Lect: TuTh 1. Lab: 3 hours to be arranged. Fourth year.

Prerequisite: the instructor's permission.
Crystal symmetry, production and properties of x-rays; optical principles of x-ray diffraction; crystal-structure analysis; discussion of crystal-structure analyses of chemical and biochemical interest.

Biochemistry G9001x–G9002y. Seminar

The departmental staff. W 4–6. Fourth year.

Ph.D. candidates and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

Biochemistry G9015x–G9016y. Research in biochemistry

The departmental staff. Hours to be arranged. Third and fourth years.

Prerequisite: the permission of the department.

DERMATOLOGY

Dermatology 101T. Medical mycology

Professor Silva. Eight hours a week for twelve weeks. Second year.

Given with *Microbiology 118T.*
Lectures and laboratory.

Dermatology 207–208. Outpatient clinic clerkships

Members of the departmental staff. Five afternoons a week for one month. Third and fourth years.

Dermatology 219–220. Histopathology of the skin

Members of the departmental staff. Hours to be arranged. Fourth year.

MEDICINE

Medicine 227–228. Special clinics at Presbyterian Hospital

Third and fourth years.

Morning clinics:

A. *Diabetes.* Professor Pines. MWF, Floor 2. Limited to six students.
B. *Thyroid.* Professors Werner and Aranow. F, Floor 10. Limited to six students.
C. *Nephritis and hypertension.* Professor Laragh. Tu, Floor 2. Limited to four students.

Afternoon clinics:

D. *Allergy.* Professor Sherman. MTuThF, Floor 10. Limited to two students.
E. *Cardiac.* Professor M. I. Ferrer. F, Floor 10. Limited to four students.
F. *Arthritis.* Professor Christian. WF, Floor 10. Limited to four students.
G. *Combined endocrine.* Professor Werner and associates. Tu, Floor 3. Limited to six students.
H. *Gastrointestinal.* Professor Flood. MWF, Floor 3. Limited to two students.

Prerequisite: the third-year clinical clerkship in medicine.
Applications for work in these clinics should be made to the secretary of the department one week before the beginning of the quarter. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230. Differential diagnosis

Professor Kneeland. Fourth year.

At the beginning of class, abstracts of histories are distributed, and the diagnosis, not known by students or instructor, is handed to the instructor. Discussion of the diagnosis and presentation of pathological material follow.

Medicine 231–232. Research

Professor Bradley (in charge). Third and fourth years.

Open to qualified workers. Research in the clinical laboratories of the department.

Medicine 235–236. Elective clinical clerkship

Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

MICROBIOLOGY

Microbiology 118T. Medical mycology

Professor Silva. Eight hours a week for twelve weeks. Second year.
Given with *Dermatology 101T*. Lectures and laboratory.

Microbiology 251FSTFo. Research in problems of microbiology, immunology and immunochemistry
The departmental staff. Hours to be arranged. Third and fourth years.
Laboratory.

NEUROLOGY

Neurology 241–242. Ward clinical clerkships
Professor Merritt and the departmental staff. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year.

ORTHOPEDIC SURGERY

Orthopedic Surgery 207–208. Clinical instruction on wards, in outpatient department, and in operating room
The departmental staff. Third year.

OTOLARYNGOLOGY

Otolaryngology 225–226. Research in otolaryngology
Professor Fowler. Hours to be arranged. Third and fourth years.

Otolaryngology 226–227. Ward clinical clerkship
Professor Fowler, Dr. Savetsky, and the departmental staff. Fourth year.
Prerequisite: a clerkship in medicine and surgery.

PATHOLOGY

Pathology G9051x–G9052y. Research in pathology
Professors McKay and Spiro and members of the departmental staff. Hours to be arranged. Third and fourth years.

PHARMACOLOGY

Pharmacology 229–230. Research in pharmacology
The departmental staff. Hours to be arranged. Third and fourth years.
Eligibility to be determined on consultation.

Pharmacology-Physiology 301. Seminar in pharmacology
The departmental staff. Third and fourth years.
Graduate students meet for one hour weekly to discuss recent advances in these disciplines.

PHYSICAL MEDICINE AND REHABILITATION

Physical Medicine and Rehabilitation 201. Special work
Professor Darling and the departmental staff. Third year.
Open to a limited number of students for special work during one quarter of the year.

Other courses are listed in the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

Physiology G8001x–G8002y. Advanced physiology

Professor Taggart and the departmental staff. TuTh 3–5. Lab: by arrangement. Third and fourth years.

History of physiology and modern experimental methods. Practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, and the like.

Physiology G9051x–G9052y. Research in physiology

Members of the departmental staff. Hours to be arranged. Third and fourth years.

Eligibility to be determined on consultation.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

Students interested in electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, and the like should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the appropriate professor.

A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

An elective in medicine in the tropics is available to fourth-year students who serve in hospitals in Liberia and Surinam.

PSYCHIATRY

Psychiatry 219–220. Psychological methods

Professors Carr and Thetford. Forenoons, twice a week. Third and fourth years.

Theories and exercises in clinical psychology. Limited to two students.

Psychiatry 221–222. Elective

Professor Kolb and the departmental staff. Hours to be arranged. At the Psychiatric Institute and Presbyterian Hospital. Third year.

Psychiatry 223–224. Clinical elective

Professors Kaufman, Cotton, or Laidlaw. Hours to be arranged. At Mt. Sinai, St. Luke's, or Roosevelt Hospital. Third year.

Psychiatry 225–226. Research elective

Professors Kolb, Schachter, and research faculty. Hours to be arranged. All four years.

Research stipends are available for elective periods during the year for special work with various divisions of the department.

RADIOLOGY

Radiology 213. Clinical radiology

Professors Alpert, Ellis, Schlaeger, Schwarz, Seaman, and Taveras. Four- to six-week periods throughout the year. Third year.

A clinical clerkship in roentgen diagnosis and radiotherapy, including roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment and follow-up care of the patient with cancer.

SURGERY

Surgery 221–222. Research in surgical laboratory

Professor Habif and assistants. Given throughout the year. Third and fourth years.

Specific problems are assigned; they may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225. Tissue culture as a research method

Professor Murray and assistants. One hour lecture and three hours laboratory. November 1 to February 1. Third and fourth years.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of the results.

► SUMMARY OF STUDIES (IN HOURS)

FIRST YEAR

Anatomy 101F *161*
Anatomy 102ST *272*
Anatomy 103FSTFo *77*
Anatomy 106TFo *140*
Biochemistry 101F *190*
Pathology 101FST *44*
Physiology 101STFo *179*
Psychiatry 101FST *30*

TOTAL HOURS: *1,093*

SECOND YEAR

Medicine 101T *99*
Medicine 102T *88*
Medicine 103S *10*
Medicine 104T *4*
Microbiology 101F *151*
Microbiology 105F *52*
Neurology 101T *20*
Pathology 101FST *251*
Pathology 102S *36*
Pharmacology 101FS *132*
Psychiatry 102T *20*
Public Health 101F *55*
Public Health 101T *11*
Surgery 101S *12*
Surgery 102T *66*

TOTAL HOURS: *1,007*

THIRD YEAR

Dermatology 203–204 *34*
Medicine 201–202, 203–204, 205–206 *447*
Neurology 207–208, 209–210 *38*
Obstetrics and Gynecology 201–202 *56*
Ophthalmology 201–202, 203–204 *42*
Orthopedic Surgery 201–202, 203–204 *80*
Otolaryngology 201–202, 203 *40*
Pediatrics 201–202, 207–208 *208*
Psychiatry 203–204 *147*
Public Health 203–204, 205, 206 *85*
Radiology 201–202, 205, 206 *24*
Surgery 201–202, 204–205, 211–212 *219*
Electives 385

TOTAL HOURS: *1,805*

FOURTH YEAR

Dermatology 205–206 *28*

Medicine 205–206, 207–208, 209–210, 221–222, 223–224, 225–226 *465*

Neurology 202 *30*

Obstetrics and Gynecology 203–204 *280*

Orthopedic Surgery 205–206 *24*

Pediatrics 203–204 *140*

Pharmacology 202 *16*

Psychiatry 205 *15*

Public Health 205 *16*

Radiology 203–204 *16*

Surgery 209–210, 213–214, 217–218 *292*

Urology 201–202 *36*

Electives *280*

TOTAL HOURS: *1,638*

► SPECIAL PROGRAMS

PROGRAMS FOR THE DOCTOR OF PHILOSOPHY DEGREE

A limited number of qualified students may be accepted as graduate students and as candidates for the Ph.D. degree in the basic science departments of the College —Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, and Physiology—and in the Subcommittee on Biophysics (see below). Work toward the degree in the basic science departments is under the jurisdiction of the Faculty of Pure Science of the University. Admission and degree requirements and courses of instruction are given in the bulletin of the Graduate Faculties.

A student may also plan a combined program leading to the award of both the M.D. and the Ph.D. degrees. He may begin such a program either in the College or under the Faculty of Pure Science, but he may not be registered in the two faculties concurrently. It is usually to his advantage to complete the requirements for the M.D. degree first, since some of the required medical courses and elective research opportunities may be credited toward the Ph.D. degree. A student interested in a combined program should consult the chairman of the basic science department in which he plans to major and the Associate Dean of the Faculty of Medicine.

RESEARCH IN RESIDENCE

A graduate student who wishes to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence (see the schedule of fees).

PROGRAMS IN PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

Special programs of study, approximately two years in length, leading to the award of the degree of Bachelor of Science in physical therapy and in occupational therapy are offered through the Department of Physical Medicine and Rehabilitation. Programs leading to the award of a Certificate of Training are offered for students who have already earned the B.S. degree or who are graduates of nationally accredited schools of nursing. Details are given in the bulletin of Courses in Physical Therapy and Occupational Therapy.

PROGRAM OF THE PSYCHOANALYTIC CLINIC

A course of training in the theory and practice of psychoanalytic medicine is offered through the Psychoanalytic Clinic for Training and Research of the Department of Psychiatry. The program, a minimum of four years in length, leads to the award of a Certificate in Psychoanalytic Medicine. For details, see the bulletin of the Psychoanalytic Clinic.

Certificate candidates who wish to be considered for acceptance as candidates for the degree of Doctor of Medical Science may request further information from the Office of the Dean of the Faculty of Medicine.

PROGRAM IN RADIOLOGICAL PHYSICS

A student who holds a bachelor's degree or the equivalent with a major or a strong minor in physics may be eligible for admission to the full-time, integrated course in radiological physics leading to the award of the Master of Science degree. The course, which is given throughout the academic year, consists of lectures, seminars, conferences, and laboratory work designed to prepare the student to carry out all the functions of a physicist in a hospital department of radiology or to engage in applied or theoretical research. The class is limited to six students. Further information may be obtained from the office of the Department of Radiology.

PROGRAM IN BIOPHYSICS

The program of study in biophysics, which leads to the award of the degree of Doctor of Philosophy, is under the jurisdiction of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics. Information about admission and degree requirements and courses of instruction is given in the bulletin of the Graduate Faculties.

The Postgraduate Program

Opportunities for medical training beyond the M.D. degree are offered at Columbia University through three major programs: 1) the training of specialists by means of hospital residencies; 2) the Doctor of Medical Science program, for physicians specializing in the basic sciences; and 3) special courses designed to enrich the preparation of physicians already in practice or to advance the knowledge of those already practicing a specialty. Further information about these programs may be obtained from the Office of the Dean of the Faculty of Medicine.

TRAINING OF SPECIALISTS

The program offers training opportunities through fellowships at the College of Physicians and Surgeons and residencies at affiliated hospitals for holders of the M.D. degree who have completed hospital internships. Proper training for specialization includes three major elements: First, it provides a comprehensive clinical experience as a resident in a hospital that is equipped and staffed to provide graded responsibilities under the supervision of experts in the selected specialty. Second, it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience through advanced training in those medical sciences that are largely concerned with his specialty. Finally, it gives the student the opportunity, either as a resident or as a fellow, to do basic or clinical research. This in turn may stimulate the type of creative productivity that may earn him a recommendation that he be admitted to a program leading to the award of the Doctor of Medical Science degree.

PROGRAM FOR THE DOCTOR OF MEDICAL SCIENCE DEGREE

The University confers the Med.Sc.D. degree upon a few physicians who have a particular interest and competence in one of the basic science fields. Only members of the staff of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the basic science field is required. Additional requirements include the passing of a comprehensive examination and an oral examination, completion of a significant and original research project, and submission of a dissertation.

COURSES FOR PRACTICING PHYSICIANS AND SPECIALISTS

A variety of short courses have been organized at hospitals and clinics affiliated with the University; they are available at the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hospital for Joint Diseases. No University credit or certificates are granted for these courses.

Courses for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training; to get abreast of new knowledge and the latest

methods of diagnosis, treatment, and prevention; and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is limited to those who have the preparation necessary to enable them to benefit by the advanced instruction.

Admission, Registration, and Expenses

Entering classes are enrolled in the College once each year in September. The minimum requirement for admission is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a bachelor's degree. The Committee on Admissions gives priority to the more advanced students.

The college program must have included English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may have concentrated on any subject—in the natural sciences, social sciences, humanities, or arts—but evidence of a balanced education, as well as demonstrated ability in the natural sciences, is preferred.

APPLICATION PROCEDURE

Application for admission must be filed on a special form which may be obtained from the Office of the Dean of the Faculty of Medicine. Applications are accepted only for the next incoming class; requests for application forms may be submitted one year in advance of matriculation. The completed form must be accompanied by the application fee of $15. The fee helps to cover the cost of processing the application; it is therefore not returnable and is not credited toward tuition.

If a personal interview is required in connection with the application, it will be requested by the Dean's Office.

SELECTION OF STUDENTS

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the College will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation,

qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

ACCEPTANCE FEE

A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50, payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 15, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the College in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the College should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the College should communicate with the Dean.

► REGISTRATION

Before attending classes, each student must register in person during the registration period (see the Academic Calendar). He goes to the Office of the Registrar, files a registration blank giving such information as may be required, and pays his fees. The office, on the second floor of the College building, is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays.

REGULATIONS

Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

The privileges of the University are not available to any student until he has completed his registration. Since, under the University statutes, payment of fees is part of registration, no student's registration is complete until his fees have been paid. No student is permitted to attend any University course for which he is not officially registered unless he has been granted auditing privileges. No student may register after the stated period unless he obtains the written consent of the proper dean or director.

ATTENDANCE

Students are held accountable for absences incurred owing to late enrollment. Any student whose religious duties conflict at any time with academic requirements should apply to his dean or director for an equitable solution.

ACADEMIC DISCIPLINE

The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems proper. The disciplinary authority of the University is vested in the President and, subject to his reserved powers, in the dean of each faculty and the director of the work of each administrative board.

HONOR CODE

Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgement of this understanding at the College. Each student is expected to abide by it.

► FEES

The following fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

COMPREHENSIVE FEE

For all students for one academic year, payable in two installments $ 100.00

TUITION

For the full course in medicine for one academic year (or equivalent), payable in two installments	1,350.00*

RESEARCH IN RESIDENCE

During the academic year, for any period or part of a period not longer than an autumn term or spring term (see below)	50.00
During the summer, for the period or part of the period between Commencement and September registration	25.00

STUDENT HEALTH AND HOSPITAL FEE

For all students, per academic year (see below)	50.00

APPLICATION FEES AND LATE FEES

For admission	15.00
For each special examination	10.00
For renewal of application for a degree	1.00
For late registration	6.00
For late application, or late renewal of application, for a degree	5.00

PAYMENT OF FEES

Tuition and the comprehensive fee are payable each term in advance and as part of registration. If these fees are paid after the last day of registration a late fee of $6.00 will be imposed. Checks for tuition and fees should be drawn to the order of Columbia University.

WITHDRAWAL AND ADJUSTMENT OF FEES

A student in good academic standing who is not subject to discipline will always be given an honorable discharge if he wishes to withdraw from the University. If he is under twenty-one years of age, his parent or guardian must first give consent in writing to the Dean.

If a student withdraws from the College, a partial return of the tuition may be authorized by the Registrar. He must notify the Registrar in writing at once; any adjustment of the tuition he has paid is reckoned from the date on which the Registrar receives this written notification. The comprehensive fee, the student health and hospital fee, application fees, late fees, and special fees are not refundable.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

UNDUE BREAKAGE

Although no deposit is required of students to cover laboratory material and ordinary breakage, a charge will be made for any unusual amount of breakage.

* Beginning with the academic year 1963–1964, tuition will be $1,550.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2–200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization are taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

The student health and hospital fee is used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service.

APPLICATION, OR RENEWAL OF APPLICATION, FOR A DEGREE

A candidate for the M.D. or Med.Sc.D. degree must file application for the degree by March 1 of the year in which he expects the degree to be awarded. Announcement of the date and procedure is posted on the bulletin boards each spring. If the degree is not earned as expected, the application may be renewed the following year for a fee of $1.00. The M.D. and Med.Sc.D. degrees are awarded in June; the Ph.D. degree is awarded whenever the candidate completes the requirements.

► ESTIMATED EXPENSES

The approximate cost of attending the College for an academic year is as follows:

	Average	*Minimum*
Tuition and fees *	$1,500	$1,500
Room in Bard Hall	350	250
Board	700	650
Books and instruments (except microscope)	200	150
Laundry and dry cleaning	150	50

In addition, each student should budget an average of $350 (minimum $250) for such items as clothing, travel, dues to organizations, amusements, and sundries.

MICROSCOPE, INSTRUMENTS, AND BOOKS

Each entering student is required to provide himself with a microscope of standard make fitted with the following attachments:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens
6. Substage lamp

These are the minimum microscope requirements. Most students will prefer to have a microscope with a quadruple nosepiece carrying a low power scanning objective in addition to the 16mm., 4mm., and oil immersion objectives.

* Beginning with the academic year 1963–1964, tuition and fees will total $1,700.

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $425 to $640. Microscopes may be rented at $8 a month or $70 for a school year. A limited supply of binoculars are also available for rental at $15 a month or $130 a school year.

Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

The books required or recommended for courses of instruction are announced at the beginning of the year.

► HOUSING

Rates for accommodations at Bard Hall range from $318 to $525 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-a-week, fifteen-meal, prepaid board plan; the present rate is $400 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

Financial Aid

A *fellowship* is an academic award of honor accompanied by a stipend to be used by the fellow in the futherance of his studies or research. Fellows are not required to render any service to the University or the donor; rather, they are to devote their entire time to their own work. There is no restriction on a fellow's publication of his studies or research as a condition of the grant. A fellow may not engage in any remunerative employment while holding a fellowship unless the Dean gives his written consent.

A *scholarship* is an award, on grounds of scholarly competence and need, of a stipend to be used by the scholar in the furtherance of his studies or research. The same rules of tenure apply as those governing fellowships except that scholars may engage in remunerative employment without the consent of the Dean. Scholarship stipends are usually smaller than fellowship stipends.

Fellowships and scholarships are usually awarded for no more than one academic year. They may be canceled at any time for failure to maintain a satisfactory academic standard or to comply with the terms of the award. Fellows and scholars, except those holding traveling fellowships, are expected to reside in New York City or its vicinity during the academic year, unless written permission is granted by the Dean to study elsewhere.

Dates of application and further information may be obtained from the Office of the Dean.

FELLOWSHIPS

Area Institute. Varying in number; from $2,500 to $3,500 each. Open to graduates of, or second-year students in, the professional schools of the University; for work toward certificates in the regional institutes. An applicant is required to give the major portion of his time to the area program; he should discuss his program with the appropriate institute director before applying.

Bache, Jules S. (1945). Open to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in obstetrics and gynecology. Given by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache.

Barnes-Foster (1950). About $5,000. Open to women graduate students for work in gynecology.

Baruch, Bernard M. Two or three; awarded annually; about $2,500 each. For graduate study in physical medicine and rehabilitation. From the Bernard M. Baruch Gift to Columbia University.

Beekman, Gerard (1940). Awarded annually; about $4,000. Given by the Beekman Family Association.

Cutting, William Bayard, Traveling (1913). Two; awarded annually; about $5,000 each. Open to men who have been in residence as candidates for higher degrees under the Graduate Faculties for at least one academic year and to graduates of the University in law, medicine, architecture, or music who have had at least one additional year of graduate study in the University. Given by Mrs. William Bayard Cutting, in memory of her husband, William Bayard Cutting, LL.B. '71, M.A. '72.

Du Bois, Abram. Awarded annually; about $1,270. Open to a graduate of the College; for specialization in diseases of the eye or for studies in surgical pathology. The holder devotes his time to clinical and laboratory study, at home or abroad. Given by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835.

Ellis, George W. Awarded annually; about $5,000. Open to graduates of recognized Vermont colleges. Reappointment: for a student in medicine, not more than three additional years.

Gay, Frederick Parker, Memorial. Awarded annually; about $5,000. For graduate work in bacteriology; awarded on the nomination of the chairman of the Department of Microbiology.

Gies, William J. Awarded annually; about $3,100. For graduate study in biochemistry; awarded on nomination of the chairman of the Department of Biochemistry.

Holt, L. Emmett. Awarded annually; about $4,500. Open to a student of the graduating class of any medical school or to a graduate of not more than six years standing; for the study of diseases of children, in this country or abroad. Reappointment: for not more than one additional year.

James, Walter Belknap, Research. Awarded annually. Open to a graduate in medicine; for advanced study in medicine either at the University or elsewhere.

Koplik Children's Scholarship. Awarded every other year; about $2,800. Open to a physician under thirty years of age who has shown special aptitude for original work in the investigation of the diseases of children.

Lambert, Samuel W. and Elizabeth W., Traveling (1948). For specialization in surgery. Given in memory of Samuel W. and Elizabeth W. Lambert.

Proudfit, Maria McLean. Awarded every four years; about $3,000. Open to a son of native-born American parents; for advanced studies in internal medicine. The holder must remain unmarried for the duration of the fellowship. Given by Alexander Moncrief Proudfit, A.B. '92. Next award: 1965–1966.

Romaine, DeWitt C. (1946). For medical research in the College. Given by the estate of C. Everetta Romaine.

Ryle, Dorothy, Research (1950). For research in neurology. Given by Thorneycroft Ryle.

Tilney, Frederick, Memorial Fund. For such research projects in neurology as may be recommended from time to time by the chairman of the Department of Neurology, the Dean of the Faculty of Medicine, and the President of the

Board of Trustees of the Presbyterian Hospital. Given by the Frederick Tilney Memorial Fund, Inc.

Tucker, Ervin Alden. Awarded annually; about $3,500. For graduate study in obstetrics. Given by Mrs. Ervin Alden Tucker.

SCHOLARSHIPS

Alumni. A limited number of national scholarships. Provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. Several; Awarded annually. From an anonymous donor.

Banbury (1955). Open to students enrolled in the College. From the Banbury Scholarship Fund.

Blumenthal, George, Jr. Several. From the George Blumenthal, Jr., Fund.

Buchman, Dr. Moses R., Memorial (1957). Open to undergraduate medical students, with preference given to those who are residents of Westchester and who plan to practice pediatrics. Established by friends of Dr. Buchman.

Bull, David C., Memorial (1959). In memory of Dr. David C. Bull, a former member of the Department of Surgery.

Butler, Richard. Open to men born in the state of Ohio who are qualified for admission to, and plan to enter, Columbia College, one of the Graduate Faculties, or the Schools of Law, Medicine, or Engineering. Reappointment: not more than two additional years.

Clark, Alonzo. Awarded annually. Founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons.

Class of 1890. Awarded annually. Given by a member of the class.

Class of 1899. Awarded annually. For a resident scholarship. Given by the class in commemoration of the thirty-fifth anniversary of their graduation.

Class of 1912. Awarded annually. Given by the class on the fifteenth anniversary of their graduation.

Class of 1920. Awarded annually. Given by the class on the twenty-fifth anniversary of their graduation.

Class of 1932. Awarded annually. For a scholarship room. Given by the class on the twenty-fifth anniversary of their graduation.

Class of 1933. For a scholarship room.

Class of 1936. Awarded annually. Given by the class on the twenty-fifth anniversary of their graduation.

Class of 1953. Awarded annually. Given by members of the class.

DeAngelis, Anthony M. (1958). Open to a student of the fourth-year class. Given by Dr. Anthony M. DeAngelis.

Dennett, Horace. Several; awarded annually. Open to students in the third- and

fourth-year classes whose records of ability and scholarship give evidence of special fitness.

Detwiler, Samuel R., Memorial (1957). Awarded annually. Given by Dr. Detwiler's friends and colleagues.

Devendorf, David M. Preference is given to a candidate from Herkimer County, New York, preferably one from the town of Herkimer. Given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861.

Doughty, Francis E. Given by Miss Phoebe Caroline Swords, in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner, Joseph Herman and Hannah (1941). Awarded annually. Founded by the will of Benjamin Bernard Eichner, Class of 1919.

George and Charlie (1942). Awarded annually. Given by the Alumni Association of the College, in memory of George Peters and Charles Costello.

Hanlon, John F. Awarded annually. Given by members of the Class of 1951, in memory of their classmate, John F. Hanlon.

Harsen, Jacob (1859). Five; awarded annually: two to students in the second-year class, two to students in the third-year class, and one to a student in the fourth-year class. Given by Jacob Harsen, M.D.

Hartley, Frank (1914). Given by friends and colleagues of Dr. Frank Hartley, Class of 1880.

Hemingway, William H. Several; awarded annually; to cover tuition.

Himmelstein, Aaron, Memorial (1960). Awarded annually. Open to undergraduate medical students. Given by Dr. Himmelstein's friends and colleagues.

Huber, Francis. Awarded annually. Open to a graduate of any institution other than Columbia University, the College of the City of New York, Barnard College, and Hunter College. Given by Francis Huber, M.D.

Huber, Viola B. Awarded annually. Open to a graduate of Hunter College. Given by Francis Huber, M.D.

Jacobi, Abraham. Four; awarded annually; two to graduates of Columbia University and two to graduates of the College of the City of New York. Given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi.

Loeb, Robert F., Educational Gift (1961). For the education of children of full-time staff members.

McAneny, Marjorie. Awarded annually. Open to a graduate of Barnard College. Given by Francis Huber, M.D.

Markoe, Francis Hartman. Awarded annually. Given by Madeline Shelton Markoe, in memory of her husband.

Rappleye, Willard Cole. Established at the retirement of Dean Rappleye.

St. John-Princeton (1955). Open to graduates of Princeton University who have been admitted to the College.

Saphir, Joseph F., Memorial (1960). Awarded annually. Given by Elsa M. Saphir, in memory of her husband, Joseph F. Saphir, Class of 1902.

Stewart, Edgar Eginton, Jr., Memorial. Awarded annually. Given by Dr. E. E. Stewart, in memory of his son.

Vollmer, Hermann. Awarded annually. Open to candidates in medicine. Established in his memory by his wife.

Vosseler, Theodore L. Awarded annually. Preference is given to graduates of Colgate University. Given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler.

Wechsler, Robert M. Awarded annually. Given by Dr. I. S. Wechsler, in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945, in memory of their classmate.

Wilson, Dr. James Lancelot. Awarded annually. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

With the exception of the Stevens Triennial Prize, all awards are made annually.

Coakley Memorial Prize. $200. Awarded by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year.

Cock, Thomas F., M.D., Prize. About $125. Awarded to the student in the College who submits the best thesis on puerperal fever. Given by bequest of Augustus C. Chapin.

Gay, Frederick Parker, Memorial Award (1948). About $30. Awarded to a student doing outstanding work in microbiology who is chosen by the chairman of the Department of Microbiology and the Dean of the Faculty of Medicine. Given by Mrs. Frederick Parker Gay, in memory of her husband.

Janeway Prize. About $85. Awarded to the student graduating from the College who, in the opinion of the Faculty, has ranked highest in efficiency and ability. Given by bequest of Matilda S. J. Wisner.

Meierhof, Dr. Harold Lee, Prize. About $75. Awarded by the Professor of Pathology to the student who, in his opinion, has done the best work in the field for the current year. Given by the parents of Dr. Harold Lee Meierhof, Class of 1917.

Parker, Joseph Garrison, Award. Awarded to the senior in the College who best exemplifies, through a continued personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. Given by Dr. and Mrs. Philip Parker, in memory of their son, Joseph, Class of 1948, whose promising career in medicine was cut short by death in 1953, but

in whose life the love of music and the arts was a constant source of inspiration.

Psychiatry, Department of, Prize. About $50. Awarded by the Department of Psychiatry to a second-year student for the best work in psychopathology.

Sciarra, Helen M., Prize. About $100. Awarded to the fourth-year student who has done the best work in the third-year neurology elective.

Smith, Joseph Mather, Prize. About $525. Awarded to the graduate of the College whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious.

Stevens Triennial Prize. About $290. Awarded triennially to the person, not necessarily a graduate of the College, who submits the best essay or original research on any medical subject.

Watson, Dr. William Perry, Foundation in Pediatrics Prize (1921). About $370. Awarded to a member of the graduating class who has been in attendance for at least two years and who has shown the most efficient work in the study of the diseases of infants and children during the regular course at the College.

STUDENT LOANS

Loan funds are provided by Columbia University in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

A National Defense Student Loan Program, administered by the University, is available through the Department of Health, Education, and Welfare. Students who are legal residents of New York State are eligible for loans and for New York State Scholar Incentive Awards through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's Office.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's Office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the College it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

The wives of medical students will find many opportunities for employment at the Medical Center, and those who are interested should notify the Dean's Office.

Student and Alumni Activities

All students enrolled in the College enjoy the privileges and facilities of the University campus, including the University libraries, the Placement Office, and the various student activities.

P&S CLUB

The P&S Club is now in its sixty-eighth year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of the Director of Student Activities, Mr. Edwin M. Barton.

A faculty board of advisers assists the students and the Director in the operation and support of the club program. Every matriculated student in the College of Physicians and Surgeons is automatically a member and is invited to participate in the pursuits of his choice.

Among the activities sponsored by the P&S Club are an orientation program for new students, athletic contests, concerts, choir and vesper services, talks by guest lecturers, home visits with members of the faculty, and student-faculty visits.

In recent years, the Club has also sponsored conferences on such subjects as medicine and religion, and medicine and law, as well as on medical service appointments here and abroad.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a medical honor society, membership in which is based upon scholarship and character. A chapter was organized at the College of Physicians and Surgeons in 1907.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

After graduation, all students who are in good professional standing may become members of the Alumni Association of the College of Physicians and Surgeons by notifying the secretary, Dr. Lowyd W. R. Ballantyne, 630 West 168th Street, New York 32, N.Y., that they wish to join.

Departments of Instruction and Research

Anatomy

PROFESSORS

Wilfred M. Copenhaver, *chairman*. *A.B., Western Maryland, 1921; Ph.D., Yale, 1925*
Malcolm B. Carpenter. *A.B., Columbia, 1943; M.D., Long Island, 1947*
Herbert O. Elftman. *A.B., Columbia, 1923; M.A., 1935; Ph.D., 1929*
Frederick A. Mettler. *A.B., Clark, 1929; M.A., Cornell, 1931; Ph.D., 1933; M.D., Georgia, 1937; D.Sc., Clark, 1951*
Margaret R. Murray (assigned to Surgery). *A.B., Goucher, 1922; M.S., Washington University, 1924; Ph.D., Chicago, 1926*
Aura E. Severinghaus, *associate dean*. *B.S., Columbia, 1916; M.A., 1919; Ph.D., 1929*
George K. Smelser (assigned to Ophthalmology). *A.B., Earlham, 1929; Ph.D., Chicago, 1932*

ASSOCIATE PROFESSORS

Frederic J. Agate. *A.B., Columbia, 1932; Ph.D., 1949*
Charles A. Ely. *A.B., Washington and Jefferson, 1936; Ph.D., Wisconsin, 1949*
Melvin L. Moss. *A.B., New York University, 1942; D.D.S., Columbia, 1946; Ph.D., 1954*
Charles R. Noback. *B.S., Cornell, 1936; M.S., New York University, 1938; Ph.D., Minnesota, 1942*

ASSOCIATE PROFESSOR OF DENTAL ANATOMY

Edmund Applebaum. *D.D.S., New York College of Dentistry, 1922*

ASSISTANT PROFESSORS

Philip W. Brandt. *A.B., Swarthmore, 1952; M.S., Pennsylvania, 1957; Ph.D., Columbia, 1960*
Richard P. Bunge. *A.B., Wisconsin, 1954; M.S., 1956; M.D., 1960*
Stanley M. Crain (assigned to Neurology). *A.B., College of the City of New York, 1943; Ph.D., Columbia, 1954*
George D. Pappas. *A.B., Bowdoin, 1947; Ph.D., Ohio State, 1952*
William M. Rogers. *B.S., Georgia, 1921; Ph.D., Cornell, 1927*
Shih-Chang Shen. *B.S., Yenching, 1933; Ph.D., Cambridge, 1939*

ASSISTANT CLINICAL PROFESSOR

Robin M. Rankow. *B.S., College of the City of New York, 1935; D.D.S., Columbia, 1940; M.D., Rochester, 1950.*

RESEARCH ASSOCIATES

Gordon I. Kaye
Thomas Tallberg

INSTRUCTORS

John V. Gazzola
Herman Gladstone
B. William Glick
James S. Harrison

INSTRUCTORS (*continued*)

Henry P. Levy
Julius K. Littman
Nancy L. Trotter

Anesthesiology

PROFESSORS

Emanuel M. Papper, *chairman. A.B., Columbia, 1935; M.D., New York University, 1938*
Gabriel G. Nahas. *M.D., Toulouse, 1945; Ph.D., Minnesota, 1953*

ASSOCIATE PROFESSORS

Bernard R. Fink. *B.S.C., London, 1935; M.B., B.S., 1938*
Lester C. Mark. *M.D., Toronto, 1941*
Shih-Hsun Ngai. *B.M., National Central (Nanking), 1944*

ASSOCIATE PROFESSORS OF CLINICAL ANESTHESIOLOGY

Edgar C. Hanks. *A.B., Gettysburg, 1943; M.D., Jefferson, 1947*
Herman Schwartz. *A.B., New York University, 1944; M.D., 1946*

ASSISTANT PROFESSORS

Leonard Brand. *B.S., Yale, 1946; M.D., Columbia, 1949*
Robert M. Epstein. *B.S., Michigan, 1947; M.D., 1951*
Jean Henley. *A.B., Barnard, 1937; M.D., Columbia, 1940*
Ronald Katz. *A.B., Wisconsin, 1948; M.D., Boston, 1956*
Richard J. Kitz. *B.S., Marquette, 1951; M.D., 1954*
Vance Lauderdale. *A.B., Harvard, 1945; M.D., Columbia, 1947*
Frank Moya. *A.B., New York University, 1949; M.D., State University of New York, 1953*
Richard W. Patterson. *A.B., Iowa, 1943; M.D., 1947*
Daniel M. Pino. *M.D., New York University, 1942*
Herbert Rackow. *B.S., Pennsylvania State, 1939; M.D., Howard, 1946*
Ernest Salanitre. *B.S., College of the City of New York, 1936; M.D., Rome, 1942*
Cyril Sanger. *M.B., B.S., St. Bartholomew's (London), 1945*
Charles C. Wycoff. *A.B., California, 1941; M.D., 1943*

ASSISTANT PROFESSOR OF PEDIATRICS

L. Stanley James. *M.D., Otago, New Zealand, 1948*

ASSOCIATES

Veronica Bakamjian
Donald C. Brody
Mieczyslaw Finster
Lynne T. Greene
Joannes H. Karis
Richard S. Matteo
Stuart F. Sullivan

ASSOCIATES (*continued*)

Charles E. Wolf
Gerald E. Wolf

RESEARCH ASSOCIATES

Salha S. Daniel
Kraesten J. Grann
Peter W. McCormick

RESEARCH ASSOCIATES (*continued*)

Hisayo O. Morishima
Virginia L. Thorndike
Mariagnes Verosky
Iris W. Schwartz

INSTRUCTOR

Harold S. Small

► AT MARY IMOGENE BASSETT HOSPITAL

ASSOCIATE

William F. Karl

► AT MONTEFIORE HOSPITAL

CLINICAL PROFESSOR

Francis F. Foldes. *M.D., Pazmany Peter University (Budapest), 1934*

ASSISTANT CLINICAL PROFESSOR

Deryck Duncalf. *M.B., Ch.B., Leeds, 1950*

Biochemistry

PROFESSORS

David Rittenberg, *chairman. B.S., College of the City of New York, 1929; Ph.D., Columbia, 1934*
Erwin Chargaff. *Ph.D., Vienna, 1928*
Zacharias Dische (assigned to Ophthalmology). *A.B., Lwow (Poland), 1913; M.D., Vienna, 1921*
Samuel Graff. *B.S., Purdue, 1927; Ph.D., Columbia, 1931*
Seymour Lieberman (assigned to Obstetrics and Gynecology). *B.S., Brooklyn, 1936; M.S., Illinois, 1937; Ph.D., Stanford, 1941*
Karl Meyer (assigned to Medicine). *M.D., Cologne, 1924; Ph.D., Berlin, 1927*
David Nachmansohn (assigned to Neurology). *M.D., Berlin, 1926*
David Shemin. *B.S., College of the City of New York, 1932; M.A., Columbia, 1933; Ph.D., 1938*
Warren M. Sperry (assigned to Psychiatry). *B.Chem., Cornell, 1921; M.S., Illinois, 1922; Ph.D., Rochester, 1925*
David B. Sprinson. *B.S., College of the City of New York, 1931; M.S., New York University, 1936; Ph.D., Columbia, 1946*
Heinrich B. Waelsch (assigned to Psychiatry). *M.D., Prague, 1929; Ph.D., 1930*

ASSOCIATE PROFESSORS

Reinhold Benesch. *B.Sc., Leeds, 1941; M.Sc., 1945; Ph.D., Northwestern, 1950*
Irwin Clark (assigned to Orthopedic Surgery). *A.B., Harvard, 1939; Ph.D., Columbia, 1949*
Philip Feigelson (assigned to Medicine). *B.S., Queens, 1947; Ph.D., Wisconsin, 1951*
Barbara W. Low. *Ph.D., Oxford, 1948*
Irwin B. Wilson (assigned to Neurology). *B.S., College of the City of New York, 1941; M.A., Columbia, 1947; Ph.D., 1948*
Stephen Zamenhof. *M.E., Warsaw Polytechnic, 1933; D. Tech. Sc., 1936; Ph.D., Columbia, 1949*

ASSISTANT PROFESSORS

George Alexander (assigned to Psychiatry). *B.S., Hobart, 1949; Ph.D., Rutgers, 1953*
Max A. Eisenberg. *A.B., Brooklyn, 1938; M.S., New York University, 1941; Ph.D., Duke, 1950*
Horace B. Gillespie. *A.B., Lawrence, 1925; M.S., Illinois, 1926; Ph.D., 1930*
Allen M. Gold (assigned to Neurology). *Ph.D., Harvard, 1955*
Irving Goodman (assigned to Surgery). *A.B., Colorado, 1939; M.S., 1941; Ph.D., 1944*
Erich Hirschberg (assigned to Medicine). *Ph.D., Wisconsin, 1950*
Philip Hoffman (assigned to Medicine). *B.A., Toronto, 1950; Ph.D., Rochester, 1953*
Alvin I. Krasna. *A.B., Yeshiva, 1950; Ph.D., Columbia, 1955*

Abel L. Lajtha (assigned to Psychiatry). *Ph.D., Budapest, 1945*
Ines Mandl (assigned to Obstetrics and Gynecology). *Ph.D., Brooklyn Polytechnic, 1949*
Herbert L. Meltzer (assigned to Psychiatry). *B.S., Long Island, 1942; Ph.D., Columbia, 1950*
Hermann Moser. *Ph.D., Basel, 1949*
Thomas D. Price (assigned to Urology). *A.B., California, 1942; Ph.D., Columbia, 1951*
Abraham Rosenberg. *B.S., Illinois, 1947; M.S., Polytechnic Institute of Brooklyn, 1952*
Herman Shapiro. *B.S., College of the City of New York, 1951; Ph.D., Columbia, 1958*
Henry S. Simms (assigned to Pathology). *B.S., Massachusetts Institute of Technology, 1920; Ph.D., Columbia, 1922*
Parithychery Srinivasan. *B.Sc., Madras, 1946; Ph.D., 1953*
Benjamin Weiss (assigned to Psychiatry). *B.S., Iowa, 1944; Ph.D., Illinois, 1949*

ASSISTANT PROFESSORS OF MEDICINE

Aaron D. Freedman. *A.B., Cornell, 1942; M.D., Albany, 1945; Ph.D., Columbia, 1958*
Gerald B. Phillips. *A.B., Princeton, 1948; M.D., Harvard, 1948*

ASSOCIATES

Ernest Borek
Gerald Cohen (assigned to Psychiatry)
Paul E. Hochstein (assigned to Medicine)
Helen C. Lawler (assigned to Neurology)

RESEARCH ASSOCIATES

Mella Adlersberg-Zalman
Ruth E. Benesch
Sherman Beychok (assigned to Neurology)
George I. Birnbaum
Richard C. Bray

RESEARCH ASSOCIATES (*cont.*)

Doris H. Clouet (assigned to Psychiatry)
J. Ralph Einstein
Sheila Garrett
Erlio Gurpide (assigned to Obstetrics and Gynecology)
I. Aravindakshan Menon
Seiji Morisawa
Amos Neidle (assigned to Psychiatry)
Louise L. Phillips (assigned to Obstetrics and Gynecology)
Ildiko Radichevich (assigned to Medicine)

RESEARCH ASSOCIATES (*cont.*)

Rivka Rudner
Milon Sprecher
Irving Sucher
Keizo Tsushima
Eugene M. Volpert (assigned to Medicine)
Elsie Wainfan
Magdalena B. Wechsler
Paula E. Zimmering (assigned to Obstetrics and Gynecology)

INSTRUCTORS

Harry Dougherty
Jay A. Glasel

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Harold L. Atkins. *M.D., Harvard, 1952*
Arnold L. Bachman. *B.S., New York University, 1931; M.D., 1934*
David H. Baker. *M.D., Boston, 1951*
William Gross (Physics). *A.B., Columbia, 1947; M.A., 1949; Ph.D., 1959*
Ruth F. Hill (Physics). *A.B., Hunter, 1940; M.S., Michigan State, 1942; M.A., Yale, 1944; Ph.D., Columbia, 1954*
Walter G. Lutz. *M.D., Munich, 1936*
Douglas G. Potts. *M.D., Otago (New Zealand), 1951*
Ralph Schlaeger. *B.S., Wisconsin, 1942; M.D., 1945*
Gerhart S. Schwarz. *M.D., Basle, 1939*
Norah duV. Tapley. *A.B., Mount Holyoke, 1945; M.D., Columbia, 1949*

ASSOCIATES

Carl B. Braestrup
Louis A. Rottenberg

INSTRUCTORS

Frieda Feldman
Harold S. Goldman

INSTRUCTORS (*continued*)

Hugh G. Gregg
Kevin L. Macken
Edgar A. Parmer
Samuel J. Phillips
George C. Ramsay
Robert P. T. Reeves

INSTRUCTORS (*continued*)

Patricia Tretter
Roslyn S. Yalow

SPECIAL LECTURER

Edith H. Quimby

► AT MARY IMOGENE BASSETT HOSPITAL

ASSISTANT CLINICAL PROFESSOR

Otto D. Sahler. *M.S., Rochester, 1936; M.D., 1938*

► AT MOUNT SINAI HOSPITAL

ASSOCIATE CLINICAL PROFESSORS

Sergei Feitelberg (Physics). *B.S., Institute of Technology, Berlin, 1928; M.D., Lausanne, 1939*
Bernard S. Wolf. *B.S., New York University, 1932; M.D., 1936*

INSTRUCTOR

Sidney M. Silverstone

► AT ST. LUKE'S HOSPITAL

ASSISTANT CLINICAL PROFESSORS

Nathaniel Finby. *A.B., Johns Hopkins, 1938; M.D., 1942*

Surgery

VALENTINE MOTT PROFESSOR

George H. Humphreys II, *chairman. A.B., Harvard, 1925; M.D., 1929; Med.Sc.D., Columbia, 1935*

PROFESSOR OF ANATOMY

Margaret R. Murray. *A.B., Goucher, 1922; M.S., Washington (St. Louis), 1924; Ph.D., Chicago, 1926*

PROFESSOR OF SURGICAL PATHOLOGY

Raffaele Lattes. *M.D., Turin, 1933; Med.Sc.D., Columbia, 1946*

PROFESSORS OF CLINICAL SURGERY

George F. Crikelair. *A.B., Wisconsin, 1941; M.D., 1944*
Cushman D. Haagensen. *M.D., Harvard, 1923*
David V. Habif. *B.S., Columbia, 1936; M.D., 1939*

CLINICAL PROFESSOR

Robert H. Wylie. *Ph.B., Yale, 1927; M.D., Columbia, 1931*

ASSOCIATE PROFESSORS

Robert B. Hiatt. *B.S., Wilmington, 1938; M.D., Cincinnati, 1942*
John Scudder. *B.S., Rutgers, 1923; M.D., Harvard, 1927; Med.Sc.D., Columbia, 1939*

ASSOCIATE PROFESSOR OF SURGICAL PATHOLOGY

Nathan Lane. *A.B., Columbia, 1943; M.D., 1945*

ASSOCIATE PROFESSORS OF CLINICAL SURGERY

Harold G. Barker. *A.B., Utah, 1939; M.D., Pennsylvania, 1943*
Robert H. E. Elliott, Jr. *A.B., Princeton, 1928; M.D., Columbia, 1932; Med.Sc.D., 1938*
Milton R. Porter. *A.B., Cornell, 1938; M.D., 1941*
Thomas V. Santulli. *B.S., Columbia, 1935; M.D., Georgetown, 1939*

ASSISTANT PROFESSORS

Richard Britton. *M.D., Yale, 1947*
Frederic P. Herter. *M.D., Harvard, 1944*
James R. Malm. *A.B., Princeton, 1949; M.D., Columbia, 1949*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Irving Goodman. *A.B., Colorado, 1939; M.S., 1941; Ph.D., 1944*

ASSISTANT PROFESSOR OF SURGICAL PATHOLOGY

Luciano Ozzello. *M.D., Turin (Italy), 1951*

ASSISTANT PROFESSORS OF CLINICAL SURGERY

David M. Ju. *M.D., National Medical College, Shanghai, 1941*
Ferdinand F. McAllister. *A.B., Dartmouth, 1934; M.D., Harvard, 1939*
John Prudden. *M.D., Harvard, 1945*
Grant Sanger. *A.B., Princeton, 1931; M.D., Cornell, 1935*
Edward B. Self. *A.B., Yale, 1932; M.D., Columbia, 1936; Med.Sc.D., 1943*
Arthur B. Voorhees. *M.D., Columbia, 1946*
Philip D. Wiedel. *B.S., Cannes (France), 1934; A.B., Columbia, 1938; M.D., 1941*

ASSISTANT CLINICAL PROFESSORS

Hugh Auchincloss, Jr. *A.B., Yale, 1938; M.D., Columbia, 1942*
Charles W. Findlay. *M.D., Columbia, 1943*
Edmund N. Goodman. *B.S., College of the City of New York, 1928; M.D., Columbia, 1933*
Frederick R. Randall. *M.D., Howard, 1945*

RESEARCH ASSOCIATES

Magda Levy
Mary S. Parshley
Edith Peterson
Benjamin T. Sandler

INSTRUCTORS

Shivaji B. Bhonslay, Jr.
Frederick O. Bowman, Jr.
Carl R. Feind
Paul Gerst
Cadvan O. Griffiths, Jr.

INSTRUCTORS (*continued*)

George Kleinfeld
Alfred M. Markowitz
John Price
Robert Salerno
Francis C. Symonds, Jr.

RESEARCH ASSISTANT

Helena H. Benitez

ASSISTANTS

Raymond A. Amoury

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Robert L. Beals
Robert W. Beasley
Stanley Giannelli, Jr.
Paul C. Koontz, Jr.
Arthur B. Lissner
Anthony Shaw
Jerome G. Stabile

SPECIAL LECTURERS

Balbina Johnson
Virginia K. Frantz

► AT MARY IMOGENE BASSETT HOSPITAL

CLINICAL PROFESSORS

John H. Powers. *A.B., Bates, 1919; B.A., Oxford, 1923; M.D., Harvard, 1925*

ASSOCIATE CLINICAL PROFESSORS

Alfred Jaretzki III. *A.B., Harvard, 1941; M.D., 1944*
James Mithoefer. *M.D., Harvard, 1940*

INSTRUCTOR

David A. Blumenstock

► AT BELLEVUE HOSPITAL

CLINICAL PROFESSOR

Jose M. Ferrer, Jr. *A.B., Princeton, 1934; M.D., Columbia, 1938*

ASSOCIATE CLINICAL PROFESSORS

J. Maxwell Chamberlain. *A.B., Colorado, 1928; M.D., 1933; M.S., Michigan, 1939*
Joseph M. Ford. *A.B., Harvard, 1942; M.D., Columbia, 1945*
Adrian Lambert. *A.B., Yale, 1930; M.D., Columbia, 1934*
Herbert C. Maier. *A.B., Columbia, 1928; M.D., 1932; Med.Sc.D., 1937; M.S., Michigan, 1938*

ASSOCIATE PROFESSOR OF MICROBIOLOGY

Charles L. Fox, Jr. *A.B., Harvard, 1929; M.D., Long Island, 1934*

ASSISTANT CLINICAL PROFESSORS

William W. Heroy. *A.B., Columbia, 1933; M.D., 1937*
Henry A. Kingsbury. *B.S., Princeton, 1932; M.D., Cornell, 1936*
R. Sterling Mueller. *B.S., Princeton, 1922; M.D., Columbia, 1926*
David M. Weeks. *M.D., Michigan, 1927*
T. Scudder Winslow. *A.B., Princeton, 1938; M.D., Cornell, 1942*

ASSOCIATES

Paul Kirschner
Kenneth M. Lewis, Jr.
Walter W. Miner
Edward G. Stanley-Brown

RESEARCH ASSOCIATE

Herbert Singer

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Lowyd Ballantyne
Ramon S. de Jesus
Selden J. Dickinson
John A. Malcolm
Rudolph Matflerd
Thomas M. McNeill
Robert T. Potter

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Eugene Quash
Reuven K. Snyderman
John M. Wilson, Jr.

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Malcolm Moley
Walter Zuckerman

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CLINICAL PROFESSOR

Elliott S. Hurwitt. *A.B., Harvard, 1933; M.D., 1939*

ASSOCIATE CLINICAL PROFESSOR

Henry Haimovici. *P.C.N., Marseilles, 1928; M.D., 1937*

► AT MOUNT SINAI HOSPITAL

CLINICAL PROFESSOR

Allen E. Kark. *B.Sc., Witwatersrand, 1940; M.B.B.Ch., 1944*

► AT ROOSEVELT HOSPITAL

CLINICAL PROFESSOR

Howard A. Patterson. *A.B., North Carolina, 1921; M.D., Harvard, 1925*

ASSOCIATE CLINICAL PROFESSORS

Frederick H. Amendola. *B.S., College of the City of New York, 1923; M.D., Cornell, 1927*
J. William Littler. *M.D., Duke, 1942*
James E. Thompson. *A.B., Texas, 1924; M.D., 1927*

ASSISTANT CLINICAL PROFESSORS

Charles F. Stewart. *M.D., Columbia, 1938*

ASSOCIATE

James B. Rodgers

INSTRUCTOR

John T. Brennan, Jr.

ASSISTANTS

David M. Carberry
Robert A. Hinrichs
John H. Terry, Jr.

► AT ST. LUKE'S HOSPITAL

CLINICAL PROFESSOR

Harold A. Zintel. *B.S., Akron, 1934; M.D., Pennsylvania, 1938*

ASSOCIATE CLINICAL PROFESSORS

Alexander E. W. Ada. *B.A., Queen's (Ontario), 1923; M.D., 1926*
Hugh F. Fitzpatrick. *B.S., Creighton, 1942; M.D., 1943*
Richard B. Stark. *A.B., Stanford, 1936; M.D., Cornell, 1941*

ASSISTANT CLINICAL PROFESSOR

W. Graham Knox. *A.B., Columbia, 1939; M.D., 1942*

ASSOCIATE

Robert W. Fraser

INSTRUCTORS

Charles R. Blair

INSTRUCTORS (*continued*)

Peter A. Bossart
Robert T. Edmunds
Engel P. Hevenor
Carl S. Oakman

ASSISTANTS

Clayton R. DeHaan
Robert McCabe

Urology

PROFESSOR

John K. Lattimer, *chairman. A.B., Columbia, 1935; M.D., 1938; Med.Sc.D., 1943*

ASSOCIATE PROFESSOR OF CLINICAL UROLOGY

Hans H. Zinsser. *B.S., Harvard, 1938; M.D., Columbia, 1942*

ASSOCIATE CLINICAL PROFESSOR

Charles T. Hazzard. *B.S., Dartmouth, 1928; M.D., Columbia, 1932*

ASSISTANT PROFESSOR

Harry Seneca. *M.D., American University of Beirut, 1933; M.S., Tulane, 1943*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Thomas D. Price. *A.B., California, 1942; Ph.D., Columbia, 1951*

ASSISTANT PROFESSOR OF PHYSIOLOGY

Richard C. Mason. *Ph.D., Indiana, 1952*

ASSISTANT PROFESSORS OF CLINICAL UROLOGY

Thomas J. Sullivan. *B.S., College of the City of New York, 1933; M.D., Maryland, 1937*
Ralph J. Veenema. *A.B., Calvin, 1938; M.D., Jefferson, 1945*

ASSOCIATES

Raymond Jonnard
Reginald F. Seidel
Aurelio Uson
Ralph C. Yeaw

RESEARCH ASSOCIATE

Gerda G. Mayer

RESEARCH ASSOCIATE IN PHYSIOLOGY

Harold Lamport

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Stanley B. Braham
Archie L. Dean
John T. Donovan
C. Dudley Miller
Stanford Pulrang
Arthur T. Willetts

ASSISTANTS

Paul F. Crutchlow
Louis J. Dougherty
Bruno Fingerhut

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Charles A. Furey
John H. Hobart
Frank W. Longo
Murray B. Pincus
Michael J. Pirozzi
Myron S. Roberts
Hamid Tarassoly
Robert P. White III

SPECIAL LECTURER

Meyer M. Melicow

Roster of Students

Internship Placement: Class of 1962

Ackerman, Albert. *Mount Sinai Hospital, New York City*

Allen, Thomas E. *San Francisco Hospital, San Francisco, Calif.*

Augur, Newell A., Jr. *University Hospital, Ann Arbor, Mich.*

Baker, Fred L. *St. Albans U.S. Naval Hospital, New York City*

Barlow, Peter B. *University Hospital, Ann Arbor, Mich.*

Behrens, Myles M. *Presbyterian Hospital, New York City*

Bell, Donald C. *The Bronx Hospital, New York City*

Bell, H. Glenn, Jr. *University of California Hospitals, San Francisco, Calif.*

Bell, Robinette N. *The Bronx Hospital, New York City*

Berkes, Kenneth J., Jr. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*

Berman, Howard H. *Walter Reed General U.S. Army Hospital, Washington, D.C.*

Bezahler, Stephen. *University of Pennsylvania Hospital, Philadelphia, Pa.*

Bowers, Henry M., Jr. *Duke Hospital, Durham, N.C.*

Brown, Courtney W. *St. Luke's Hospital, New York City*

Brown, Richard M. *Baylor University College of Medicine Hospitals (Jefferson Davis), Houston, Tex.*

Bruck, Harold. *Bellevue Hospital Center, First Surgical Division, New York City*

Brust, John C., Jr. *Presbyterian Hospital, New York City*

Bull, Marcia A. *Bellevue Hospital Center, First Medical Division, New York City*

Bull, Sherman M. *Bellevue Hospital Center, First Surgical Division, New York City*

Burress, Donald A. *Presbyterian Hospital, New York City*

Campbell, James M. *San Francisco Hospital, San Francisco, Calif.*

Casazza, Albert R. *Bellevue Hospital Center, First Medical Division, New York City*

Cassileth, Peter A. *Presbyterian Hospital, New York City*

Caton, Donald. *University of Virginia Hospital, Charlottesville, Va.*

Chao, Solan. *Bellevue Hospital Center, First Medical Division, New York City*

Coates, Edward D. *Los Angeles County Hospital, Los Angeles, Calif.*

Coen, Stanley J. *Johns Hopkins Hospital, Baltimore, Md.*

Cohen, Donald S. *Mount Sinai Hospital, New York City*

Cohn, Peter F. *St. Luke's Hospital, New York City*

Coulis, Despine L. *Bellevue Hospital Center, Third Division (Pediatrics), New York City*

Covey, William G. *Bellevue Hospital Center, First Medical Division, New York City*

Danes, Betty S. *Bellevue Hospital Center, Second Medical Division, New York City*

Dauber, Leonard G. *Bronx Municipal Hospital Center, New York City*

Dubin, Howard V. *University Hospital, Ann Arbor, Mich.*

Duncan, William C. *Boston City Hospital, Fifth Surgical Division (Harvard), Boston, Mass.*

Flagg, Stephen V. *Roosevelt Hospital, New York City*

Fogelberg, Earl V. *Presbyterian Hospital, New York City*

Fox, Howard A. *North Carolina Memorial Hospital, Chapel Hill, N.C.*

Frankel, Herman M. *Montefiore Hospital, New York City*

Franzone, Andrew J. *Lenox Hill Hospital, New York City*

Geller, Arthur S. *King County Hospital, Seattle, Wash.*

Gollance, Robert S. *Bellevue Hospital Center, Third and Fourth Medical Divisions, New York City*

Grant, John P., Jr. *Roosevelt Hospital, New York City*

Gray, Parke, H. *Hartford Hospital, Hartford, Conn.*

Gutstein, Robert A. *Presbyterian Hospital, New York City*

Haft, Jacob I. *Strong Memorial Hospital, Rochester, N.Y.*

Hankin, Edwin. *Bronx Municipal Hospital Center, New York City*

Herzberg, Robert M. *University Hospitals, Cleveland, Ohio*

Hirschhorn, Norbert. *Boston City Hospital, Second and Fourth Medical Divisions (Harvard), Boston, Mass.*

Hurst, Fred S. *Mount Sinai Hospital, New York City*

Immordino, Peter A. *Roosevelt Hospital, New York City*

Johnson, Warren D., Jr. *The New York Hospital, New York City*
Karliner, Joel S. *Bronx Municipal Hospital Center, New York City*
Kelley, John. *Roosevelt Hospital, New York City*
Kilburn, Howard L. *University of Washington Hospitals, Seattle, Wash.*
Kim, James Dong S. *Palo Alto–Stanford Hospital Center, Palo Alto, Calif.*
Klein, William J., Jr. *Presbyterian Hospital, New York City*
Kovach, John S. *Presbyterian Hospital, New York City*
Kraut, Joel A. *Massachusetts Memorial Hospital, Boston, Mass.*
Kreek, Mary J. *The New York Hospital, New York City*
Lerner, Irving J. *University of Minnesota Hospitals, Minneapolis, Minn.*
Levine, Jonathan. *University of Washington Hospitals, Seattle, Wash.*
Lovejoy, William. *Presbyterian Hospital, New York City*
Margolies, Lawrence. *Beth Israel Hospital, Boston, Mass.*
Margolies, Michael. *Massachusetts General Hospital, Boston, Mass.*
Marks, Clement E., Jr. *Bellevue Hospital Center, Third and Fourth Medical Divisions, New York City*
McCarroll, Henry R. *Barnes Hospital, St. Louis, Mo.*
McCray, Richard S. *St. Luke's Hospital, New York City*
Miller, Robert L. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*
Millheiser, Peter J. *Hospital for Joint Diseases, New York City*
Moloy, Peter J. *University of Virginia Hospital, Charlottesville, Va.*
Murphy, Scott. *Peter Bent Brigham Hospital, Boston, Mass.*
Nadel, Martin. *Grace–New Haven Community Hospital, New Haven, Conn.*
Nasr, S. Khosrow. *Bellevue Hospital Center, First Medical Division, New York City*
Nisonson, Ian. *Strong Memorial Hospital, Rochester, N.Y.*
Oppenheimer, Edward A. *Syracuse Medical Center, Syracuse, N.Y.*
Pagliaro, Salvatore J. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*
Parry, Peter V. *Lankenau Hospital, Philadelphia, Pa.*
Pascal, Robert R. *Montefiore Hospital, New York City*
Patek, David J. *University of Virginia Hospital, Charlottesville, Va.*
Pease, Paul J. *University Hospitals, Cleveland, Ohio*
Puchner, Peter J. *Strong Memorial Hospital, Rochester, N.Y.*
Purcell, Ganson, Jr. *King County Hospital, Seattle, Wash.*
Reber, Robert E. *Presbyterian Hospital, New York City*
Reese, Thomas S. *Fifth and Sixth Medical Divisions, Boston City Hospital, Boston, Mass.*
Romas, Nicholas A. *The New York Hospital, New York City*
Root, Elihu N. *Baylor University College of Medicine Hospitals (Jefferson Davis), Houston, Tex.*
Rosen, Barbara J. *DeGoesbriand Hospital, Burlington, Vt.*
Rygorsky, Jerome E. *Bronx Municipal Hospital Center, New York City*
Schiff, Eugene R. *Cincinnati General Hospital, Cincinnati, Ohio*
Schuster, Timothy S. *Lenox Hill Hospital, New York City*
Schwartz, Gabriel H. *Barnes Hospital, St. Louis, Mo.*
Seidenberg, Boyd. *Bellevue Hospital Center, First Medical Division, New York City*
Sheagren, John M. *Massachusetts General Hospital, Boston, Mass.*
Sherman, Spencer E. *Mount Sinai Hospital, New York City*
Silver, Stephen E. *University Hospital, Ann Arbor, Mich.*
Smelzer, Timothy. *Bellevue Hospital Center, First Medical Division, New York City*
Smith, Frank R. *Presbyterian Hospital, New York City*
Solomon, Henry A. *Montefiore Hospital, New York City*
Steele, Thomas H. *University Hospitals, Madison, Wis.*
Steiner, Alton L. *Albany Hospital, Albany, N.Y.*
Stewart, Franz H., Jr. *Jackson Memorial Hospital, Miami, Fla.*
Thompson, Robert D. *University Hospitals, Cleveland, Ohio*
Ulin, Richard I. *Hospital for Joint Diseases, New York City*
Valuska, James W. *University of Minnesota Hospitals, Minneapolis, Minn.*
Voeller, Kytja K. S. *Bellevue Hospital Center, Second Medical Division, New York City*
Vogel, James M. *Mount Sinai Hospital, New York City*
Waldbaum, Robert S. *Barnes Hospital, St. Louis, Mo.*
Walker, Barry R. *Temple University Hospitals, Philadelphia, Pa.*
Waterson, Karl W., Jr. *San Francisco General Hospital, San Francisco, Calif.*

Weight, Forrest F., Jr. *North Carolina Memorial Hospital, Chapel Hill, N.C.*
Weinstein, Joel D. *Presbyterian Hospital, New York City*
Weksler, Marc E. *Bronx Municipal Hospital Center, New York City*
White, John J., Jr. *St. Luke's Hospital, New York City*
Winslow, Robert B. *Grace–New Haven Community Hospital, New Haven, Conn.*
Zeft, Howard J. *Duke Hospital, Durham, N.C.*

Class of 1963

Anderson, M. Lanier — Louisville, Ky.
A.B., Smith, 1959
Aronson, William Jordan — Middlesex, Mass.
A.B., Harvard, 1951
M.S., Massachusetts Institute of Technology, 1953
Assali, Albert V. — Port-au-Prince, Haiti
A.B., Harvard, 1959
Bachner, Paul — New York City
A.B., College of the City of New York, 1959
Baer, Leslie — New York City
A.B., Wisconsin, 1959
Banner, Richard L. — Brooklyn, N.Y.
A.B., Amherst, 1959
Bissell, LeClair — New York City
A.B., Colorado, 1950
M.S., Columbia, 1952
Blacklow, Neil R. — Belmont, Mass.
A.B., Harvard, 1959
Braun, Norma Wang — Philadelphia, Pa.
A.B., Pennsylvania, 1959
Briska, Philip Thomas — New York City
A.B., Harvard, 1952
Brown, Arthur Linwood — Darien, Conn.
A.B., Princeton, 1959
Brown, Robert S. — New York City
A.B., Harvard, 1959
Bruce, David H. — Wilmington, Del.
A.B., Harvard, 1959
Burd, Robert M. — Bronx, N.Y.
A.B., Columbia, 1959
Cannon, Wayne D., Jr. — Montevideo, Uruguay
B.S., Yale, 1959
Chun, Clyde W. — Marblehead, Mass.
A.B., Harvard, 1959
Churchill, Winthrop H., Jr. — Cambridge, Mass.
A.B., Harvard, 1959
Cohen, Roger David — Newton Center, Mass.
A.B., Harvard, 1959
Coli, Robert Dante — Warwick, R.I.
B.S., Tufts, 1959
Daugharty, Terrance M. — Seattle, Wash.
B.S., Seattle, 1959
Davidson, David Beck — White Plains, N.Y.
A.B., Harvard, 1959
Deakins, Susan M. — Signal Mountain, Tenn.
A.B., Smith, 1958
Dickey, Richard A. — Indianapolis, Ind.
A.B., Kenyon, 1959
Dickinson, Louis E., III — McCook, Neb.
A.B., Harvard, 1959
Ehrlich, Michael G. — New York City
A.B., Dartmouth, 1959
Epstein, Murray — Brooklyn, N.Y.
A.B., Columbia, 1959
Feig, Stephen A. — New York City
A.B., Princeton, 1958
Feldman, Martin D. — Mahopac, N.Y.
A.B., Yale, 1959
Ferrari, Dudley A. — Shelburne Falls, Mass.
A.B., Columbia, 1959
Fischer, Edwin G. — Darien, Conn.
A.B., Harvard, 1959
Fisher, Susan Michal — New York City
B.S., Chicago, 1959
Gamble, Anne Van Nydeck — New York City
A.B., Mt. Holyoke, 1956
Geller, Martin P. — Brooklyn, N.Y.
A.B., Columbia, 1959
Grant, Sandra Elisabeth — Liberty, N.Y.
A.B., Bryn Mawr, 1958
Hakanson, Carl M. — Bergenfield, N.J.
A.B., Hamilton, 1959
Harell, George S. — New York City
A.B., Oberlin, 1959
Heissenbuttel, Robert H. — Mercer, Pa.
A.B., Thiel, 1959
Hoff, Eugene R. — St. Louis Mo.
A.B., Washington, 1960
M.S., Yale, 1961
Hoffman, Joel S. — Long Beach, N.Y.
A.B., Harvard, 1959
Howard, Clifton M. — Mt. Kisco, N.Y.
B.S., Harvard, 1943
M.A., Harvard, 1947
Howards, Stuart S. — Milwaukee, Wis.
A.B., Yale, 1959
Howie, Dennis P. — Brooklyn, N.Y.
A.B., Hamilton, 1959
Hunsicker, Lawrence Gheen — Darien, Conn.
A.B., Yale, 1959
Jordan, George W. — Denver, Colo.
B.S., Denver, 1959

Kahn, Mark E. Brooklyn, N.Y.
A.B., Columbia, 1959
Kamins, Lloyd P. Milwaukee, Wis.
B.S., California Institute of Technology, 1959
Kem, David C. New York City
A.B., Earlham, 1959
Krakoff, Lawrence R. New York City
A.B., Yale, 1959
Krick, Warren J. Washington, D.C.
A.B., George Washington, 1959
Larsen, P. Reed New York City
A.B., Princeton, 1959
Lattes, Conrad G. New York City
A.B., Swarthmore, 1958
Lesneski, Albert Conrad Fort Lee, N.J.
A.B., Princeton, 1958
Lewis, Myron Memphis, Tenn.
A.B., Dartmouth, 1959
Lightdale, Mayer R. Jersey City, N.J.
A.B., Princeton, 1957
Lindy, Jacob D. Philadelphia, Pa.
A.B., Yale, 1959
McSherry, Elisabeth Milton, Mass.
A.B., Radcliffe, 1960
Mackler, Gerald L. West Hartford, Conn.
A.B., Harvard, 1959
Maletzky, Avron J. Schenectady, N.Y.
A.B., Princeton, 1959
Manzler, Alan D. Cincinnati, Ohio
A.B., Princeton, 1959
Mauerman, George S. Monroe, Wis.
A.B., Vanderbilt, 1959
Michelsen, W. Jost Boston, Mass.
A.B., Harvard, 1959
Morgan, Daniel D., Jr. New Haven, Conn.
A.B., Yale, 1959
Mosher, Paul W. Albany, N.Y.
A.B., Harvard, 1958
Muehlbauer, Peter F. Brooklyn, N.Y.
A.B., Columbia, 1959
Muhm, Harvard Yale St. Charles, Mo.
A.B., Yale, 1959
Murphy, John Thomas Chappaqua, N.Y.
Princeton, 1959
Musher, Daniel M. New York City
A.B., Harvard, 1959
Naiman, Peter Todd Brooklyn, N.Y.
A.B., Williams, 1959
Neer, Eva Julia New York City
A.B., Barnard, 1959
Nelson, Bruce David Portland, Me.
A.B., Bowdoin, 1959
Nevel, William G. Walden, N.Y.
A.B., Columbia, 1959
Newberg, Marc E. Jamaica, N.Y.
A.B., Williams, 1959
Noble, John, III Beirut, Lebanon
A.B., Harvard, 1959
Orahood, Richard C. Marysville, Ohio
A.B., Ohio Wesleyan, 1958
Ortiz, Carmen I. Santurce, Puerto Rico
A.B., Wellesley, 1959
Page, Robert B. New York City
A.B., Amherst, 1959
Paris, George L. Ridgway, Pa.
B.S., Carnegie Institute of Technology, 1959
Parker, James D. Glen Ridge, N.J.
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Parks, Thomas W. New York City
A.B., Cornell, 1956
Perlman, Richard D. Brooklyn, N.Y.
A.B., Princeton, 1959
Pleasure, David E. Middletown, N.Y.
A.B., Yale, 1959
Pleasure, Jeanette R. New York City
A.B., Barnard, 1959
Pohlman, Mark H. Columbus, Ohio
A.B., Princeton, 1959
Poppa, Geraldine Brooklyn, N.Y.
A.B., Vassar, 1959
Rappaport, Michael L. Highland Park, Ill.
A.B., Harvard, 1958
Reifsnyder, David N. New York City
A.B., Columbia, 1957
Rein, Joel M. New York City
A.B., Columbia, 1959
Reynolds, James Christopher
Alexandria, Va.
A.B., Harvard, 1959
Rittenberg, Stephen M. Englewood, N.J.
A.B., Columbia, 1957
Rosenbaum, Maj-britt Tornquist
Larchmont, N.Y.
Medical Candidate, Helsinki, 1959
Rosenblatt, Martin G. Montclair, N.J.
A.B., Princeton, 1958
Rudders, Richard A. Brooklyn, N.Y.
A.B., Princeton, 1959
Ryder, Richard A. Boonville, N.Y.
B.S., Rochester, 1956
Sachs, Frederick L. Brooklyn, N.Y.
A.B., Princeton, 1959
Sade, Robert Miles Newton, Mass.
A.B., Wesleyan, 1959
Saks, Joel W. Springfield, Mass.
A.B., Wesleyan, 1959
Schaefer, Robert A. Dobbs Ferry, N.Y.
A.B., Yale, 1959
Schechter, Alan N. Brooklyn, N.Y.
A.B., Cornell, 1959
Scheiner, David L. Margate, N.J.
A.B., Princeton, 1959
Scherzer, Alfred Leonard New York City
M.A., Yale, 1957
Schneider, William J. Mount Vernon, N.Y.
B.S., Tufts, 1959
Schonberg, Stephen S.
West Hempstead, N.Y.
A.B., Princeton, 1959
Schwartz, David T. University Heights, Ohio
A.B., Harvard, 1959

Serber, Barbara Jo New York City
A.B., Indiana, 1955
Ph.D., Columbia, 1955
Serxner, Jonathan L. Brooklyn, N.Y.
A.B., Columbia, 1959
Shupack, Jerome Leonard Brooklyn, N.Y.
A.B., Columbia, 1959
Silver, Lawrence R. Cedarhurst, N.Y.
A.B., Yale, 1959
Simmonds, John S. Arlington, Va.
A.B., Yale, 1959
Smith, Charles M. Chillicothe, Ohio
A.B., Princeton, 1959
Snyder, Bernard M. Harrisburg, Pa.
A.B., Franklin and Marshall, 1959
Steinfeld, Leonard I. Bronx, N.Y.
A.B., Princeton, 1959
Steinman, Charles R. Brooklyn, N.Y.
A.B., Princeton, 1959
Taylor, Marc J. Mount Vernon, N.Y.
A.B., Amherst, 1958
Tiley, Frederick, W. Lehighton, Pa.
A.B., Princeton, 1959
Wainstein, Eli Forty Fort, Pa.
A.B., Pennsylvania, 1959
Weksler, Babette Teaneck, N.J.
A.B., Swarthmore, 1958
Wider, Jerry A. Bay Shore, N.Y.
A.B., Princeton, 1959
Williams, Thomas A. New York City
A.B., Harvard, 1958
Wolfinger, Howard Leiter, Jr.
Greencastle, Pa.
B.S., Haverford, 1959
Wood, Dean Scott Santa Cruz, Calif.
A.B., Harvard, 1959
Zener, Julian C. Durham, N.C.
A.B., Harvard, 1959
Zweiback, Eugene M. Omaha, Neb.
A.B., Princeton, 1959

Class of 1964

Andrews, Willard E. Palisade, N.J.
A.B., Haverford, 1960
Arend, William P. Holland Patent, N.Y.
A.B., Williams, 1959
Atlas, Meryl Sharon Brooklyn, N.Y.
B.S., College of the City of New York, 1960
Attkiss, Michael J. Brooklyn, N.Y.
A.B., Harvard, 1960
Ballard, Bruce L. Waverly Hills, Ky.
A.B., Yale, 1960
Barnum, Howard J., Jr. Wilton, Conn.
A.B., Florida Southern, 1942
Barth, Rolf F. Jackson Heights, N.Y.
A.B., Cornell, 1959
Bedell, David T. Jacksonville, Fla.
A.B., Virginia, 1960
Berio, Jose M., Jr. Santurce, Puerto Rico
B.S., Puerto Rico, 1960
Berk, Paul D. Brooklyn, N.Y.
A.B., Swarthmore, 1959
Berman, Harris A. Concord, N.H.
A.B., Harvard, 1960
Blaydow, A. Kenneth Gladwyne, Penn.
A.B., Princeton, 1958
Blume, Ralph S. Yonkers, N.Y.
A.B., Amherst, 1960
Boothe, Robert L. Westfield, N.J.
A.B., Princeton, 1960
Bronshvag, Mike M. Bronx, N.Y.
A.B., New York University, 1960
Brooks, John R. Meriden, Conn.
A.B., Yale, 1960
Brower, Anne C. Westfield, N.J.
A.B., Smith, 1960
Buker, Gerald D. Vestal, N.Y.
B.S., Wheaton, 1960
Cervino, A. Lawrence Greensburg, Pa.
A.B., Princeton, 1960
Chaitman, Edmund Forest Hills, N.Y.
A.B., Hamilton, 1960
Chen, Peter S. New York City
A.B., Harvard, 1960
Childers, Jack C., Jr. Lexington, N.C.
A.B., Princeton, 1960
Conrad, Sue F. Little Falls, N.Y.
A.B., Rochester, 1960
David, David S. Great Neck, N.Y.
A.B., Columbia, 1960
Davidson, Barry A. Bloomfield, N.J.
B.S., Franklin and Marshall, 1960
Decter, Neil Rockaway Beach, N.Y.
A.B., Columbia, 1960
deFuria, Frank G. Upper Darby, Pa.
A.B., Harvard, 1960
De Muth, Simon H. New City, N.Y.
A.B., Princeton, 1960
Dent, Thomas L. Fayette City, Pa.
A.B., Yale, 1960
Doctoroff, Stephen J. Newton Centre, Mass.
A.B., Harvard, 1960
Donahoe, Patricia K. Braintree, Mass.
B.S., Boston, 1958
Egan, James H. Bellmore, N.Y.
B.S., William and Mary, 1960

Essandoh, Samuel O. Ghana, W. Africa
A.B., Lincoln, 1958
Finn, James W. Greenwich, Conn.
A.B., Amherst, 1959
Forrest, David V. Rockville Centre, N.Y.
A.B., Princeton, 1960
Franck, Walter A. Scarsdale, N.Y.
A.B., Yale, 1960
Freedman, Gerald S. Mt. Vernon, N.Y.
B.M.E., Cornell, 1959
Freyer, Stuart Great Neck, N.Y.
A.B., Columbia, 1960
Friedberg, Michael A. Brooklyn, N.Y.
A.B., Williams, 1960
Friend, William G. Seattle, Wash.
A.B., Princeton, 1960
Frueh, Bartley R. Lakewood, Ohio
B.C.E., Cornell, 1960
Gelfand, Michael L. New York City
A.B., Columbia, 1960
Gerstel, Howard M. Hewlett, N.Y.
A.B., Columbia, 1960
Gilbert, Marvin S. Mt. Vernon, N.Y.
A.B., Columbia, 1960
Golwyn, Daniel H. Philadelphia, Pa.
A.B., Kenyon, 1959
Gregg, Thomas F. Cambridge, Mass.
A.B., Harvard, 1959
Groder, Martin G. Flushing, N.Y.
A.B., Columbia, 1960
Grollman, Evelyn F. Dallas, Tex.
A.B., Sarah Lawrence, 1960
Hamilton, Lewis L. Allison Park, Pa.
B.S., Yale, 1960
Hamilton, William G. Madison, Wis.
B.S.E., Princeton, 1954
Hart, Katherine Denver, Colo.
A.B., Smith, 1960
Henriquez, Carlos L. Yonkers, N.Y.
A.B., Columbia, 1960
Hoyte, Arthur H. Malden, Mass.
A.B., Harvard, 1960
Humphries, Robert H. Short Hills, N.J.
B.S., Wheaton, 1960
Jamison, Jane A. Chatham, N.J.
A.B., Cornell, 1960
Johnson, David D., II Charleston, W.Va.
A.B., Harvard, 1960
Kaplan, Alfred I. New York City
A.B., Columbia, 1960
Kauderer, John G., Jr. New York City
A.B., Columbia, 1959
Kirchner, Peter T. Pierre, S. Dak.
A.B., Yale, 1960
Kistler, J. Philip Tulsa, Okla.
A.B., Harvard, 1960
Lawrence, William H., Jr.
San Francisco, Calif.
A.B., Princeton, 1960
Leventer, Leonard Merrick, N.Y.
A.B., Columbia, 1960
Lewis, Robert D. Briarcliff Manor, N.Y.
A.B., Princeton, 1960
Lipton, Richard A. West Hempstead, N.Y.
A.B., Bethany, 1960
Lowenthal, Gilbert, Jr. Braddock Hts., Md.
A.B., Brown, 1960
McCarthy, Joseph G. Lowell, Mass.
A.B., Harvard, 1960
Marmar, Kenneth A.
Framingham Centre, Mass.
A.B., Harvard, 1960
Mayer, Eugene S. Westfield, N.J.
B.S., Tufts, 1960
Mulliken, John B. Minneapolis, Minn.
A.B., Princeton, 1960
Musgrave, Franklin S. Marietta, Ohio
B.S., Syracuse, 1958
M.B.A., California (Los Angeles), 1959
A.B., Marietta, 1960
Nank, David R. Mt. Clements, Mich.
A.B., Princeton, 1960
Ogawa, Robert T. Oahu, Hawaii
A.B., Kenyon, 1960
Parsons, Charles P. Ashland, Ky.
B.S., Cornell, 1960
Patt, Stephen L. Elkins Park, Pa.
A.B., Harvard, 1960
Pietropinto, Anthony P. New York City
A.B., New York University, 1960
Platnik, Bruce H. Jamaica, N.Y.
A.B., Columbia, 1960
Poliakoff, Claude S. Forest Hills, N.Y.
A.B., Columbia, 1960
Porter, Cedric W., Jr. Wellesley Hills, Mass.
A.B., Harvard, 1960
Priestley, Joseph B., Jr. Des Moines, Iowa
A.B., Yale, 1960
Rappaport, Lawrence N. Great Neck, N.Y.
A.B., Harvard, 1960
Rechler, Matthew M. Brooklyn, N.Y.
A.B., Harvard, 1960
Reid, Watson D. Greenwich, Conn.
A.B., Yale, 1959
Reilly, John W. Ft. Lee, N.J.
A.B., Columbia, 1960
Reiss, Ian M. Brooklyn, N.Y.
A.B., Columbia, 1960
Reul, Charles G. Westfield, N.J.
A.B., Princeton, 1960
Robbins, Theodore B. Gloucester, Mass.
A.B., Harvard, 1960
Rogal, Philip J. Brooklyn, N.Y.
A.B., Princeton, 1960
Rosen, P. Peter New York City
A.B., Swarthmore, 1960
Salomon, Peter F. New York City
A.B., Harvard, 1960

Sananman, Michael L. Brooklyn, N.Y.
A.B., Swarthmore, 1960
Schreiber, Ronald New York City
A.B., Columbia, 1960
Spencer, Norman A. Brooklyn, N.Y.
A.B., Amherst, 1960
Stein, Gary F. Brooklyn, N.Y.
A.B., Union, 1960
Stiehm, William D. Madison, Wis.
B.S., Wisconsin, 1960
Stilley, J. William Homestead, Pa.
A.B., Princeton, 1960
Students, Ariana B. Red Bank, N.J.
A.B., Stanford, 1960
Sundahl, C. Gerald Bradford, Pa.
A.B., Princeton, 1960
Takekoshi, Akemi Pasadena, Calif.
A.B., Vassar, 1960
Turvey, B. Edward, Jr. Dayton, Ohio
A.B., Oberlin, 1960
Vetter, William R. Flushing, N.Y.
A.B., Amherst, 1960
Wang, Stephen F. Brooklyn, N.Y.
A.B., Columbia, 1960
Webb, Ann Heroy Sewickley, Pa.
A.B., Vassar, 1960
Webb, Charles A., Jr. Baltimore, Md.
A.B., Trinity, 1960
Williams, Edward G., Jr. Passaic, N.J.
B.S., Lehigh, 1960
Willner, Jeanne R. New Hope, Pa.
B.S., Connecticut, 1960
Wilson, William R. Mahwah, N.J.
A.B., Yale, 1960
Wolk, Michael J. New York City
A.B., Colgate, 1960
Wood, Barry G. New York City
A.B., Columbia, 1960
Wright, Geoffrey B. Merrick, N.Y.
A.B., Harvard, 1960
Zamelis, Ansis New York City
Cornell
Zipf, Richard F. San Francisco, Calif.
A.B., Stanford, 1961
Zucker, Preston New York City
A.B., Hamilton, 1960

Class of 1965

Abelson, Roberta L. Yonkers, N.Y.
A.B., Cornell, 1961
Ackley, Harry A. Lancaster, Pa.
A.B., Franklin and Marshall, 1961
Bach, Robert D. Wellesley Hills, Mass.
A.B., Princeton, 1960
Baker, John D. Havana, Cuba
A.B., Haverford, 1960
Berger, Stephen M. Philadelphia, Pa.
A.B., Princeton, 1961
Bergsma, Donald R. North Haledon, N.J.
A.B., Calvin, 1961
Biddle, Virginia Oyster Bay, N.Y.
Briarcliff
Bluming, Avrum Zvi Maplewood, N.J.
A.B., Columbia, 1961
Bohnen, Robert F. Albany, N.Y.
A.B., Syracuse, 1961
Borkenhagen, David M. Columbus, Ohio
A.B., Harvard, 1961
Branscom, James J., Jr. Piedmont, Calif.
A.B., Stanford, 1961
Bridger, Abraham A. New York City
A.B., Yale, 1959
Brock, Donald J. Buffalo, N.Y.
A.B., Yale, 1961
Brodie, Harlow K. H. New Canaan, Conn.
A.B., Princeton, 1961
Brown, Norman D. Flushing, N.Y.
A.B., Princeton, 1961
Bryant, Daniel C. Cincinnati, Ohio
A.B., Princeton, 1961
Caplan, Harvey W. Ellwood City, Pa.
A.B., Swarthmore, 1961
Carida, Robert V. Newark, N.J.
A.B., Rutgers, 1961
Caskey, William B. Harrisburg, Pa.
A.B., Franklin and Marshall, 1961
Cole, James R. Buffalo, N.Y.
A.B., Princeton, 1961
Condon, James J. White Plains, N.Y.
A.B., Cornell, 1961
Cottrell, Thomas S. San Francisco, Calif.
A.B., Brown, 1955
Culver, James E., Jr. Bridgeville, Del.
A.B., Dartmouth, 1960
Davis, William J. Forty Fort, Pa.
A.B., Wilkes, 1961
de La Chapelle, Alain A. Larchmont, N.Y.
A.B., Columbia, 1960
Delbanco, Thomas L. Larchmont, N.Y.
A.B., Harvard, 1961
Drescher, Marian Staten Island, N.Y.
A.B., Hunter, 1961
Edie, Richard N. Yonkers, N.Y.
A.B., Princeton, 1959
Elting, James J. Belleville, N.J.
A.B., Yale, 1961
Falk, Stephen Brooklyn, N.Y.
A.B., Princeton, 1961

Faulk, James W. Jamestown, N.Y.
A.B., Rochester, 1961
Finkelstein, Norman M. New York City
A.B., Yale, 1961
Forester, Bruce M. New York City
A.B., Dartmouth, 1960
Garfein, Oscar B. New York City
A.B., Columbia, 1961
Ginsburg, Howard N. Newton Centre, Mass.
A.B., Harvard, 1961
Glenn, Michael L. Boston, Mass.
A.B., Princeton, 1959
M.A., Harvard, 1960
Goldreyer, Bruce N. New York City
A.B., Amherst, 1961
Haase, Ashley T. Crystal Lake, Ill.
A.B., Lawrence, 1961
Hadden, John W. Cold Spring Harbor, N.Y.
A.B., Yale, 1961
Hale, Stanton D. Darien, Conn.
A.B., Princeton, 1959
Hamada, Paul M. New Rochelle, N.Y.
A.B., Yale, 1961
Hanger, Clay N. Cleveland, Ohio
A.B., Princeton, 1957
Harris, Susan R. New York City
A.B., Michigan, 1961
Hertz, Philip New York City
A.B., Cornell, 1961
Horan, Anthony H. New York City
A.B., Dartmouth, 1961
Iseman, Michael D. Fremont, Neb.
A.B., Princeton, 1961
Jainchill, John L. New York City
A.B., Columbia, 1961
James, William A., Jr. Humboldt, Tenn.
A.B., Princeton, 1960
Johnson, Eric H. Muskogee, Okla.
A.B., Harvard, 1961
Keyser, John J. Arlington, Va.
A.B., Princeton, 1961
Kripke, Daniel F. West Orange, N.J.
A.B., Harvard, 1961
Kuehner, Charles R. Ft. Thomas, Ky.
S.B., Massachusetts Institute of Technology, 1958
Kurtin, Stephen B. New York City
A.B., Princeton, 1961
Labarthe, Darwin Honolulu, Hawaii
A.B., Princeton, 1961
Lambert, Brent W. Atherton, Calif.
A.B., Harvard, 1961
Lee, Keat-Jin Penang, Malaya
A.B., Harvard, 1961
Levy, Jay A. Wilmington, Del.
A.B., Wesleyan, 1960
Lisak, Robert P. Brooklyn, N.Y.
A.B., New York University, 1961
Longstreth, George B., III Fairfield, Conn.
A.B., Yale, 1961
Lopano, Angelo J. New York City
A.B., Fordham, 1961
Luhrmann, George W., Jr. Dayton, Ohio
S.B., Massachusetts Institute of Technology, 1956
M.S., Massachusetts Institute of Technology, 1957
Lyden, John P. New Canaan, Conn.
A.B., Harvard, 1961
McCullough, William B. New York City
A.B., Whitmore, 1953
B.D., Princeton Theological Seminary, 1956
MacFarland, Joseph A. Elmont, N.Y.
B.S., Manhattan, 1961
MacLean, William A. H. Huntington, N.Y.
B.S., Yale, 1961
MacMillan, Roger W. Schenectady, N.Y.
B.S., Trinity, 1961
Mallis, George I. Cedarhurst, N.Y.
A.B., Harvard, 1961
Mattern, William D. Kenmore, N.Y.
A.B., Hamilton, 1961
Merey, John H. Forest Hills, N.Y.
A.B., Union, 1961
Milic, Ann Boyer Staten Island, N.Y.
B.S., Columbia, 1961
Miller, Jacob D. New York City
A.B., Harvard, 1961
Mooney, James K., Jr. Nyack, N.Y.
A.B., Yale, 1961
Murray, Thomas M. New York City
A.B., Georgetown, 1961
Myerson, Daniel A. West Hartford, Conn.
B.S., Trinity, 1961
Myerson, Paul J. West Hartford, Conn.
B.S., Trinity, 1961
Nape, William J. New Orleans, La.
A.B., Johns Hopkins, 1961
Nenninger, Robert H. New York City
A.B., Columbia, 1961
Ng, Keng-Yong Singapore, Malaya
A.B., Stanford, 1961
O'Brien, Richard T. New York City
A.B., Columbia, 1961
O'Connor, Ronald W. Scarsdale, N.Y.
B.S., Yale, 1961
Oparil, Suzanne Elmira, N.Y.
A.B., Cornell, 1961
Pan, Shirley N.-H. Hong Kong
A.B., Wellesley, 1961
Pearl, Jon S. Hampton, Va.
A.B., Duke, 1961
Perkins, Richard P. Montpelier, Vt.
A.B., Hamilton, 1961
Peterson, Lynn M. Chicago, Ill.
A.B., St. Olaf, 1961
Portnoy, Barry F. New York City
A.B., New York University, 1961
Price, Ronald L. Pittsburgh, Pa.
A.B., Oberlin, 1961

Ratzan, Sanford A. New York City
A.B., Hamilton, 1961
Redmond, Paul C. Columbus, Ohio
B.S., Denison, 1961
Reichek, Nathaniel New York City
A.B., Columbia, 1961
Rofman, Samuel E. New York City
A.B., Columbia, 1961
Rose, Stuart R. New York City
A.B., Amherst, 1960
St. John, Ronald K. Marietta, Ga.
A.B., Yale, 1961
Schachter, Michael B. Cranford, N.J.
A.B., Columbia, 1961
Schreiber, Robert F. Grosse Pointe Park, Mich.
A.B., Harvard, 1961
Schuker, Eleanor S. New York City
A.B., Swarthmore, 1961
Schurman, David J. Highland Park, Ill.
A.B., Yale, 1961
Scielzo, Charles M. Ridgewood, N.J.
A.B., Harvard, 1961
Shulman, Michael G. Paterson, N.J.
A.B., North Carolina, 1961
Siegal, Frederick P. New York City
A.B., Cornell, 1961
Simmons, Barry P. Brookline, Mass.
A.B., Harvard, 1961
Singer, Kenneth M. Sac City, Iowa
S.B., Massachusetts Institute of Technology, 1961
Slaton Scheidt, Stephen M. New York City
A.B., Princeton, 1960
Sobol, Samuel M. S. Orange, N.J.
A.B., Yale, 1961
Spiegel, Dorothy E. New York City
A.B., Vassar, 1961
Stanley, Theodore H. New York City
A.B., Columbia, 1961
Steel, Richard K. New York City
A.B., Yale, 1961
Stern, Lawrence Z. New York City
A.B., Columbia, 1961
Symington, Diana G. New Hyde Park, N.Y.
A.B., Hunter, 1961
Taylor, Davida E. Berkeley, Calif.
A.B., College of the Pacific, 1960
Thompson, Richard H., Jr. Salem, Mass.
B.A., Harvard, 1960
Urbach, Jim I. South Orange, N.J.
A.B., Williams, 1961
Wallace, Richard C. Brookline, Mass.
A.B., Yale, 1960
Weingarten, Peter L. New York City
A.B., Yale, 1961
Weintraub, Joel Caldwell, N.J.
A.B., Columbia, 1961
Weld, Francis M. Smithtown, N.Y.
A.B., Harvard, 1961
Wlodkoski, Joan H. Manchester, N.H.
B.S., New Hampshire, 1961
Yvars, Manuel F. New York City

Class of 1966

The students who have been accepted as of the date this bulletin went to press are as follows:

Adler, George T. Elmont, N.Y.
A.B., Vermont, 1962
Albanese, Richard Alan Nutley, N.J.
A.B., Princeton, 1962
Albright, Nile L. Newton Centre, Mass.
A.B., Harvard, 1961
Alexander, John Maurice New York City
A.B., Harvard, 1962
Angstreich, David E. New York City
A.B., Columbia, 1962
Arnsdorf, Morton Frank Chicago, Ill.
A.B., Harvard, 1962
Ashman, Robert F. Indianapolis, Ind.
A.B., Wabash, 1960
Baker, John Herbert, Jr. Rochester, N.Y.
B.S., Trinity, 1962
Balfour, Henry H., Jr. Ridgewood, N.J.
A.B., Princeton, 1962
Ballo, Joseph Michael New York City
B.S., Manhattan, 1962
Bank, Arnold Harvey New York City
A.B., Columbia, 1962
Bannister, Terrance Swain New York City
A.B., Harvard, 1962
Baratta, Robert Orazio Jersey City, N.J.
B.S., St. Peter's College, 1962
Barzun, James Lowell New York City
A.B., Harvard, 1961
Belcher, Jonathan K. Lakeville, Conn.
A.B., Princeton, 1962
Benjamin, John Tabb Westfield, N.J.
A.B., Harvard, 1962
Bingham, David Brewster Salem, Conn.
A.B., Yale, 1962
Blood, David King Leonia, N.J.
A.B., Amherst, 1962
Brauninger, Gordon Ernest Miami, Fla.
Rensselaer Polytechnic Institute
Brenner, Elsa Scarsdale, N.Y.
Radcliffe

Brown, David Henderson Dobbs Ferry, N.Y.
Burgin, James Matthew Brookline, Mass.
A.B., Haverford, 1962
Carraway, Robert Dorff Chester, Mass.
A.B., Duke, 1962
Chin, Irene Bayside, N.Y.
A.B., Barnard, 1962
Cohen, Morton Lee Woodmere, N.Y.
A.B., Harvard, 1962
Cook, Robert Brian Leonia, N.J.
A.B., Wesleyan, 1962
Cory, Stephen P. New York City
A.B., Hobart, 1962
Dallow, Richard Leonard Cincinnati, Ohio
A.B., Princeton, 1962
Dennis, John P., Jr. Scarsdale, N.Y.
A.B., Princeton, 1958
Donham, Robert Thomas Evansville, Ind.
A.B., Evansville, 1954
Dranitzke, Richard J. Patchogue, N.Y.
A.B., Wesleyan, 1962
Drusin, Ronald E. Long Beach, N.Y.
B.S., Union College, 1962
Embury, Ruth A. New York City
A.B., Penn State, 1944
Ferguson, Wayne W. Washington, Pa.
A.B., Washington–Jefferson, 1962
Fieger, Henry George, Jr. Bronxville, N.Y.
A.B., Amherst, 1962
Fitzmorris, Clark S. Cincinnati, Ohio
A.B., Yale, 1962
Flamenbaum, Walter New York City
A.B., Washington–Jefferson, 1962
Flint, James Foreman Delhi, N.Y.
A.B., Harvard, 1962
Garshanin, Helen Long Island City, N.Y.
A.B., New York University, 1962
Gerstein, Herbert Levittown, Pa.
A.B., Columbia, 1962
Giargiana, Frank Anthony, Jr.
Lynbrook, N.Y.
A.B., Columbia, 1962
Giventer, Lawrence Albany, N.Y.
A.B., Hamilton, 1962
Glass, Peter Martin Malverne, N.Y.
A.B., Princeton, 1962
Glick, Robert Alan New York City
A.B., Yale, 1962
Goldberg, Norma Sydney
Pelham Manor, N.Y.
A.B., Smith, 1962
Goodman, Robert Leon
New Rochelle, N.Y.
A.B., Dartmouth, 1962
Greer, Douglas Fielder Arlington, Va.
A.B., Princeton, 1961
Hamilton, Gerald Lee Endwell, N.Y.
A.B., Hamilton, 1962
Harris, John Justus Des Moines, Iowa
A.B., Harvard, 1962
Heroy, James Harold, III Sewickley, Pa.
A.B., Yale, 1962
Hildebrand, Louis Edward
Grand Junction, Colo.
B.S., Wheaton, 1962
Hollander, Annette Joan New York City
A.B., Radcliffe, 1962
Irvine, Robert Dailey Beverly Hills, Calif.
A.B., Pomona, 1962
Johnson, Thomas Alden
Williamstown, Mass.
A.B., Williams, 1962
Kaufman, Howard Herschel Flint, Mich.
A.B., Yale, 1962
Kearney, John Francis, Jr.
Maplewood, N.J.
A.B., Harvard, 1962
Kelly, James Montgomery, III
Englewood, N.J.
A.B., Yale, 1962
Kinstler, Roberta Alice New York City
Kirsner, Robert Shneider Chicago, Ill.
A.B., Oberlin, 1962
Knapp, Robert Vaughan
Roslyn Estates, N.Y.
A.B., Harvard, 1962
Kosmas, William Peter Minneapolis, Minn.
A.B., Princeton, 1962
Lefkowitz, Robert Joseph New York City
A.B., Columbia, 1962
Lightdale, Charles J. Jersey City, N.J.
A.B., Princeton, 1962
Lowance, David Chandler Atlanta, Ga.
A.B., Emory, 1962
Mackenzie, John Malcolm Westfield, N.J.
A.B., Columbia, 1962
Mathews, Helen E. Gary, Ind.
A.B., Indiana, 1957
Max, Martin Hugh Brighton, Mass.
A.B., Harvard, 1962
McClelland, Robert Rugh Maryville, Tenn.
B.S., United States Military Academy, 1955
Milgram, Robert Willard New York City
A.B., Columbia, 1962
Miller, Jordan Dale New York City
A.B., Brandeis, 1962
Molavi, Abdolghader Teheran, Iran
A.B., Western Reserve, 1962
Muller, Alfred New York City
A.B., Princeton, 1962
Murray, Ethelann New York City
A.B., Vassar, 1962
Myers, H. Jack Somerville, N.J.
A.B., Princeton, 1962
Nason, Jeffrey David Newton Centre, Mass.
A.B., Harvard, 1960
Nisonson, Barton New York City
A.B., Columbia, 1962
Palatucci, Donald Michael Pelham, N.Y.
A.B., Holy Cross, 1962

Patten, Bernard M. New York City
A.B., Columbia, 1962
Pauley, Stephen McHenry Beverly Hills, Calif.
A.B., Pomona, 1962
Penn, Richard Deren Chicago, Ill.
A.B., Haverford, 1962
Perera, David Rhoads New York City
A.B., Amherst, 1962
Pinchot, Marianna Upperco, Md.
A.B., Bryn Mawr, 1962
Poletti, Charles E. New York City
A.B., Harvard, 1960
Pupio, Kenneth Angelo Youngstown, Ohio
A.B., Youngstown, 1962
Raybin, Peggy Sue New York City
B.S., College of the City of New York, 1962
Richardson, Harry Blair, Jr. Bowling Green, Ky.
B.S., Davidson, 1962
Rohrs, Charles Conrad Portland, Ore.
A.B., Columbia, 1962
Rowe, Thomas Stephen Lake Worth, Fla.
S.B., Massachusetts Institute of Technology, 1962
Rudolph, Ross Reading, Pa.
A.B., Yale, 1962
Sah, Benn Chih-mao San Francisco, Calif.
A.B., Haverford, 1962
Saj, George Passaic, N.J.
A.B., Dartmouth, 1962
Saland, David K. Merrick, N.Y.
A.B., Columbia, 1962
Salenger, Gary Beverly Hills, Calif.
A.B., Yale, 1962
Schuster, David S. New York City
A.B., Colgate, 1962
Scott, H. Denman Pacific Palisades, Calif.
A.B., Stanford, 1960
Selvey, Henry Arthur South Nyack, N.Y.
A.B., Rochester, 1962
Seymann, Roger Bernard New York City
A.B., Columbia, 1962
Shackman, Daniel Robert New York City
A.B., Columbia, 1962
Sherman, Thomas Leslie Portland, Ore.
A.B., Yale, 1962
Shields, Walker Edmund, Jr. Greenwich, Conn.
A.B., Yale, 1962
Simsarian, James Parsons Chevy Chase, Md.
A.B., Earlham, 1962
Snider, Donald L. Kent, Ohio
A.B., Haverford, 1962
Spotnitz, Henry Michael New York City
A.B., Harvard, 1962
Srinivasan, Balachandran Dobli Madras, India
A.B., Bard, 1959
Stewart, George Hoague Denver, Colo.
A.B., Harvard, 1962
Sullivan, R. Clark Bronxville, N.Y.
A.B., Stanford, 1962
Tavernetti, Richard Roland Salinas, Calif.
B.S., California, 1960
Taylor, H. Denny Lincoln, Neb.
A.B., Nebraska, 1962
Tholfsen, Judith Marie New York City
A.B., Pennsylvania, 1962
Tucker, David Theodore Valley Stream, N.Y.
A.B., Columbia, 1962
Varmus, Harold E. Freeport, N.Y.
A.B., Amherst, 1961
Wadley, Michael Ferris Columbus, Ohio
A.B., Ohio State, 1960
B.S., Ohio State, 1961
Walker, Thornton Shaler New York City
A.B., Washington and Jefferson, 1960
Waters, George H. Marshfield, Wis.
A.B., Princeton, 1961
Weinstein, Allan Joseph Newtonville, Mass.
A.B., Yale, 1962
Wells, Stephen Henry New York City
A.B., Brooklyn, 1962
Wheeler, Maynard B. New York City
A.B., Dartmouth, 1961
White, Robert Peel Omaha, Neb.
A.B., Yale, 1962
William, Lawrence Arthur East Elmhurst, N.Y.
A.B., Columbia, 1962
Withington, Richard Lawrence Watertown, N.Y.
B.S., Holy Cross, 1962
Wolff, John McDowell Atlanta, Ga.
A.B., Vanderbilt, 1962
Zucker, Jonathan Elias New York City
A.B., Columbia, 1962

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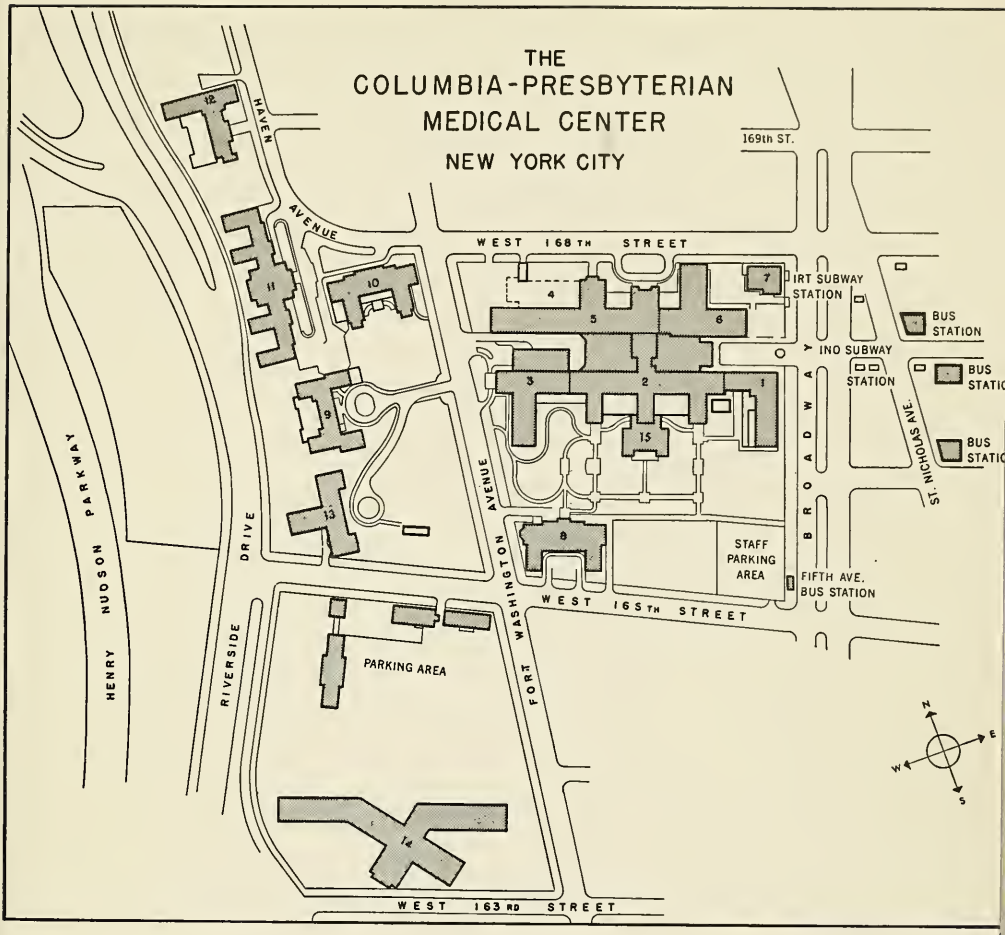

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10. NEUROLOGICAL INSTITUTE
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Columbia University Bulletin

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M-Coll.

THE FACULTY OF MEDICINE

COPY 2

College of Physicians & Surgeons

1963-1964

Inquiries

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Other Bulletins of the Faculty of Medicine:

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The Faculty of Medicine of Columbia University

College of Physicians & Surgeons

1963-1964

Grayson Kirk, Ph.D., LL.D. *President of the University*

Lawrence H. Chamberlain, Ph.D., LL.D. *Vice President of the University*

Jacques Barzun, Ph.D. *Dean of Faculties and Provost of the University*

H. Houston Merritt, M.D. *Vice President in Charge of Medical Affairs; Dean of the Faculty of Medicine*

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Columbia-Presbyterian Medical Center

View of Bard Hall from Riverside Drive

Academic Calendar, 1963-1964

May	**16–17**	Thursday-Friday. Registration, including payment of comprehensive fee, for third- and fourth-year classes.
June	**3**	**Monday. Academic year begins for third- and fourth-year classes.**
Aug	**1**	Thursday. Last day for filing application, or renewal of application, for all degrees and certificates to be conferred in October. Students who file application after this date must pay a late fee.
Sept	**12–14**	Thursday-Saturday. Registration, including payment of fees, for first- and second-year classes.
	16	**Monday. Classes begin for first- and second-year classes.**
Oct	**4**	Friday. Last day for filing dissertations for the Med.Sc.D. degree to be awarded in October.
Nov	**5**	Tuesday. Election Day. Holiday.
	28	Thursday. Thanksgiving Day. Holiday.
Dec	**2**	Monday. Last day for filing application, or renewal of application, for all degrees and certificates to be awarded in February. Students who file application after this date must pay a late fee.
	23	**Monday, through January 4, Saturday. Christmas Holidays.**
Feb	**3**	Monday. Last day for filing application for Cutting and Ellis Fellowships.
	22	Saturday. Washington's Birthday. Holiday.
Mar	**2**	Monday. Last day for filing application, or renewal of application, for all degrees and certificates to be conferred in June. Students who file application after this date must pay a late fee.
May	**2**	Monday. Last day for filing dissertations for the Med.Sc.D. degree to be conferred in June.
	23–28	**Monday-Saturday. Easter Holidays.**
May	**30**	Saturday. Memorial Day. Holiday.
June	**2**	**Tuesday. Conferring of degrees.**

The Faculty of Medicine

Grayson Kirk, Ph.D., LL.D. *President of the University*

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Jacques Barzun, Ph.D. *Dean of Faculties and Provost of the University*

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The College of Physicians and Surgeons

The College of Physicians and Surgeons is guided by the principle that medical education is university education—the creation of an atmosphere in which ideas grow and minds are disciplined. The acquisition of knowledge and skills is important in professional education, but far more vital is a profound understanding of the science, the art, and the ethic within which both knowledge and skill are applied. As a part of Columbia University, the College builds its curriculum, selects its officers of instruction, and marshals its enormous resources of equipment and clinical experience to develop in the student this understanding of medicine. Within the curriculum for the M.D. degree is the fundamental knowledge upon which later specialization is built, and from which the natural bent is discovered toward general or special practice, or toward research, teaching, or administration. The postgraduate programs of the College provide training in the specialties, help the graduate physician to keep abreast of new knowledge, and support the research from which this knowledge develops.

HISTORY OF THE COLLEGE AND THE UNIVERSITY

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May 1769 and that of Doctor of Medicine in May 1770 and May 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the college was incorporated as an integral part of the University. Since September 1917 women have been admitted to the College on the same basis as men.

Columbia-Presbyterian Medical Center

The Medical Center was opened in the spring of 1928, seven years after the establishment of a permanent affiliation between Columbia University and the Presbyterian Hospital. It consists of the following units: the divisions of the University's Faculty of Medicine (the College of Physicians and Surgeons, the Department of Nursing, the School of Public Health and Administrative Medicine); the University's School of Dental and Oral Surgery; the Presbyterian Hospital and its subdivisions; the New York State Psychiatric Institute; Francis Delafield Hospital; and the Washington Heights Health and Teaching Center.

The Medical Center occupies a plot of land given to Columbia University and the Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. It comprises about twenty acres extending from West 165th Street to West 168th Street and from Broadway to Riverside Drive, and is readily accessible from all parts of the city. A map of the Medical Center is given on the inside back cover.

The College of Physicians and Surgeons is at 630 West 168th Street between Broadway and Fort Washington Avenue in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor of which connects with the wards and services of the Presbyterian Hospital.

THE PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Presbyterian Hospital has the following subdivisions:

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and twenty beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department,. situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The Hospital and laboratories for the study of diseases of the

eye are active in the training of physicians and nurses. The hospital contains twenty-nine ward beds.

Harkness Pavilion, which contains 303 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors of the Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the economically less privileged. The professors of the College, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 201 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other disorders.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has ninety-eight ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December 1950 and is now an integral part of the Presbyterian Hospital and the College. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the College.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 172-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergraduate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,729 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 299 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,376 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains eighty-eight research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 100 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 643 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of forty-two beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,032 patients. Since

1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for undergraduate work in pediatrics and obstetrics. There are 511 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 452 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 561 beds, including sixty-two beds for children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

MEDICAL LIBRARY

The Medical Library occupies parts of the three lower floors in the College building. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately 250,000 volumes of books and journals, some 5,000 pamphlets, and about 2,000 lantern slides on the history of medicine. More than 3,800 periodicals are received regularly. A professional library staff is available to aid students, faculty members, and research workers in the schools and hospitals of the Medical Center.

The libraries on the Morningside campus, which contain some three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use. The main collection is housed in Butler Library, while special and departmental collections are located in various other buildings on the campus.

The Medical Library is open Monday through Friday, from 8:30 a.m. to 11 p.m.; Saturday, from 9 a.m. to 5 p.m.; and Sunday, from 2 p.m. to 10 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, at 50 Haven Avenue overlooking Riverside Park and the Hudson River, is the residence for men and women students of the College. Its facilities include lounging rooms a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The Program of Instruction

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems.

Throughout much of the course an effort is made to correlate the different phases of medical learning by means of "correlation" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, and in other fields of medical endeavor.

FIRST AND SECOND YEARS

The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and in the course of psychiatry, the students become aware that the welfare and care of the patient lie at the heart of the instructional program. The first year is designed to prepare the student, through an introduction to genetics, through the development and growth of the mind and body, and through an understanding of biochemistry, for the examination of the structure and function of the human body.

THIRD AND FOURTH YEARS

The third and fourth years are largely clinical. Under close supervision, the student is helped to develop attitudes, skills, knowledge, and habits applicable to a wide variety of clinical disorders. The primary educational aims are to help the student to elicit an accurate and comprehensive history, to carry out complete and thorough physical examinations, to develop an understanding of the mechanisms involved and of the various ways in which common patterns of disease affect the human being, to learn the principles necessary to reach valid clinical and diagnostic appraisals and effective therapeutic plans, and to acquire consideration and perceptiveness in the handling of patients. To this end, the clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are particularly valuable. The fourth year, in which the student is given increased responsibilities, is especially concerned

with the natural history of disease, further understanding of the impact of disease on the patient, and the management of patients.

RESEARCH OPPORTUNITIES

The importance of clinical and laboratory investigation by the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years. During their third and fourth years they may arrange programs to enable them to do full-time research for periods as long as six months. After completion of the first year, or preferably between the second and third years, a student who has made outstanding progress in his research may make arrangements to spend a full year on his original investigation rather than proceed with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

► COURSES OF INSTRUCTION AND RESEARCH

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods. The academic year for the first- and second-year students is approximately nine months long; the third and fourth years are twelve months long.

All students who are not regularly matriculated for the degree of Doctor of Medicine must obtain the permission of the instructor in charge before registering for any course.

The College reserves the right to make changes in the program of studies and courses of instruction at any time.

GRADES AND PROMOTION

The following grade equivalents are used; A, excellent; B, good; C, fair; F, work unsatisfactory.

A student may be advanced to the next academic year of the medical course or readmitted to a year only upon recommendation of the faculty under which he studied during the previous year. Students are classified under the following headings: 1) recommended for advancement; 2) recommended for readmission to the same class; 3) recommended for neither advancement nor readmission. The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to study in the College.

KEY TO COURSE NUMBERS

Medical Center courses: The suffixes *F, S, T,* and *Fo* are attached to first- and second-year courses; they indicate the part of the academic year during which the courses are given: $F = 1$st period or trimester; $S = 2$d period or trimester; $T = 3$d period or trimester; $Fo = 4$th period.

A three-digit number with no suffix indicates a third- or fourth-year course covering a period of six months or less; two hyphenated three-digit numbers indicate a third- or fourth-year course extending or being repeated to multiple-class groups for a period of more than six months.

Graduate Faculties courses (electives only): These are indicated by the prefix *G*. The suffix *x* indicates an autumn-term course; the suffix *y*, a spring-term course; two hyphenated numbers, a course that runs through the academic year (nine months).

Summer Session courses (electives only): These are indicated by the prefix *S*. The suffix *G* indicates a course given in the six-week graduate-undergraduate session.

► FIRST YEAR

Anatomy 101F. Microscopic anatomy

Professors Brandt, Copenhaver, Pappas, Shen, and Smelser; Dr. Trotter; and assistants.

Anatomy 102ST. Systematic human anatomy

Professors Elftman, Agate, Bunge, Ely, Moss, Rogers, and assistants.

Anatomy 103FSTFo. Statistics-genetics-embryology

An interdepartmental committee.

Lectures, demonstrations, and laboratory work on statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106TFo. The structure and function of the nervous system

Professors Carpenter and Noback (*Anatomy*), Rittenberg and Waelsch (*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

An interdepartmental course: lectures, demonstrations, and laboratory.

Biochemistry 101F. Introductory biochemistry

The departmental staff. Three hours of lecture and twelve hours of laboratory a week for fourteen weeks.

Medicine 114Fo. Correlation clinics

Professor Taggart and associates.

A series of clinics illustrating the application of basic science to the understanding of disease mechanisms.

Physiology 101FSTFo. Human physiology

Members of the departmental staff. Three hours of lecture, one hour of conference, and twelve hours of laboratory a week.

Psychiatry 101FST. Introduction to human behavior

Professors Kolb, Bruch, and Dunton. Thirty one-hour lectures and small group seminars.

The genetic, family, and cultural processes underlying healthy behavior; the nature of anxiety; the psychological methods of adaptation to anxiety; and the processes of communication, thought, and

learning. The process of development from infancy through the various periods of maturity is emphasized throughout.

Public Health 103FSTFo. Statistics

Professor Fertig. Three hours a week for five weeks.

Part of *Anatomy 103FSTFo.*

Stacks G4023X

► SECOND YEAR

M760

Medicine 101T. Elementary physical diagnosis

Professor Kneeland and associates. Eight hours a week for ten weeks.

Medicine 102T. Elementary clinical pathology

Professor Marks and associates. Eight hours a week for eleven weeks.

Emphasis is placed on morphology, genetics, biochemistry, and physiology in considering problems in clinical medicine; instruction in certain specific laboratory techniques for examination of blood, urine, and other clinical material.

Medicine 104T. Introductory medicine

Professor Bradley and associates. One hour a week for ten weeks.

Microbiology 101F. General medical microbiology and immunology

Members of the departmental staff. Thirteen hours of laboratory, conference, demonstration, and problems.

Microbiology 105F. The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases

Members of the departmental staff. Six hours of lecture and demonstration.

Neurology 101T. Introduction to clinical neurology

Professors Merritt and Vicale. Two hours of lecture and demonstration a week for ten weeks.

Neurological examination, anatomical, physiological, and pathological correlations.

Obstetrics and Gynecology 102T. Introduction to obstetrics and gynecology

Members of the departmental staff. Ten hours of lecture.

General clinical lectures. Presentation of basic principles in the physiology of human reproduction in relation to clinical manifestations of ovulation, fertilization, and pregnancy.

Pathology 101FS. General and special pathology

Professors McKay and Spiro and the departmental staff.

Study of the important disease processes by means of demonstrations, autopsies, conferences, and case study, and by the use of fresh specimens and a complete series of histological specimens.

Pathology 102S. Neuropathology

Professors Cowen and Wolf and the departmental staff. Three hours of lecture and laboratory a week for ten weeks.

Pharmacology 101FS. General and special pharmacology

The departmental staff. One hour of lecture or conference a week, first trimester; four hours of lecture or conference and six hours of laboratory a week, second trimester.

Psychiatry 102T. Psychopathology

Professors Carr and Thetford; Drs. Mesnikoff and Kornfeld. Twenty one-hour lectures and demonstrations. Audio-visual aids are used.

Public Health 101F. An introduction to preventive medicine and public health

Professor Brown. One hour a week for eleven weeks.

Public Health 101T. Parasitic diseases: the protozoa, helminths, and arthropods of medical significance

Professor Brown and the departmental staff. Five hours of lecture, laboratory, and demonstration.

Surgery 101S. Introduction to surgery

Professors Humphreys, Lattes, and the departmental staff. One hour a week for eleven weeks.

Surgery 102T. Recitations, demonstrations, and clinic in principles of surgery

Professors Lattes, Wiedel, and the departmental staff. Six hours a week for ten weeks.

► THIRD YEAR

Anesthesiology 201. Lectures

Professor Papper and the departmental staff. Four one-hour lectures.

Anesthesiology 204S. Seminars in anesthesiology, including practical demonstrations of anesthetic methods

Professor Papper and the departmental staff. Four hours a week for five and one-half weeks.

Part of *Surgery 204–205.*

Dermatology 203–204. Dermatology and syphilology

Professors Barker and Nelson and the departmental staff. Two introductory lectures, one symposium (on common dermatoses), and eleven three-hour demonstration sessions. At Vanderbilt Clinic.

Medicine 201–202. Ward clinical clerkship in medicine

Professor Tapley (*in charge*). Eleven weeks.

Medicine 203–204. Medical lectures

Professor Tapley and associates. One hour a week for twenty-eight weeks.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206. Combined clinics

Professor Christy and associates. One and one-half hours a week for thirty weeks.

Continued through the fourth year.

Neurology 207–208. Neurology: examination of the patient and interpretation of finding

Members of the staffs of Neurological Institute and Montefiore Hospital. Ten three-hour afternoon sessions for two and one-half weeks. At Neurological Institute and Montefiore Hospital.

Neurology 209–210. Neurology: the diseases of the nervous system

Professor Merritt and the departmental staff. Eight one-hour lecture and demonstration sessions.

Obstetrics and Gynecology 201–202. Theory and practice of obstetrics and gynecology

The departmental staff. Forty-six hours of lecture and demonstration.

Topics covered include: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology; and diagnosis of gynecological conditions.

Ophthalmology 201–202. Practical instruction in ophthalmology

The departmental staff. Fifteen hours a week for two weeks. At Vanderbilt Clinic and the Institute of Ophthalmology.

Ophthalmology 203–204. Clinical lectures on the diseases of the eye

The departmental staff. Twelve one-hour lectures.

Orthopedic Surgey 201–202. Lectures on orthopedic surgery

Professor Stinchfield and the departmental staff. One hour a week for ten weeks.

Orthopedic Surgery 203–204. Practical instruction in orthopedic surgery, including fractures and dislocations

Professors Stinchfield and McLaughlin and the departmental staff. Thirty hours of seminar and thirty hours in clinics and wards, for two and one-half weeks.

Combined with *Surgery 204–205.*

Otolaryngology 201–202. Practical instruction in the diseases of the ear, nose, and throat

Professors Altmann, Fowler, Tonndorf, Waltner, and Whitfield; and the departmental staff. Ten three-hour sessions. At Vanderbilt Clinic.

Otolaryngology 203. Lectures

Professor Fowler and the departmental staff. Ten one-hour sessions.

Pediatrics 201–202. Introduction to pediatrics

Professors Curnen and Alexander and associates. Five and one-half weeks. At Babies Hospital and Vanderbilt Clinic.

Designed to orient the student in the study of diseases of infants and children, of normal growth and development, and of maintenance of health.

Pediatrics 207–208. Bedside instruction in the common communicable diseases

Members of the departmental staff. Two two-hour sessions. At Bellevue Hospital.

Psychiatry 203–204. Clinical psychiatry

Professors P. Polatin, Langford, R. MacKinnon, and Dunton; Dr. Kesselbrenner; and clinical faculty. Fifteen hours of clinical conferences and twelve hours a week of clinical clerkships for eleven weeks. At the New York State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital.

Public Health 203–204. Preventive and administrative medicine

Professor Goldwater and the departmental staff. Six hours a week for eleven weeks.

Lectures, seminars, and field work in public health and medical care.

Public Health 205. Forensic medicine and medical jurisprudence

Dr. Weinberg and Mr. Werne. One hour of lecture a week for eleven weeks.

Public Health 206. Special topics in public health

The departmental staff. One hour a week for eight weeks.

Radiology 201–202. Diagnostic radiology

Professors Ellis, Schlaeger, and Seaman. One hour a week for eleven weeks.

Lecture topics include the principles of the roentgenographic examination of the heart, lungs, and gastrointestinal tract.

Radiology 205. X-ray interpretation

Professors Schlaeger and Seaman. Three hours of conference a week for two months.

Radiology 206. Biologic effects of ionizing radiation

Professors Jacox and Tapley. Four one-hour lectures.

Surgery 201–202. Surgery lectures

Professors Humphreys and the departmental staff. One hour a week for twenty-three weeks.

Surgery 204–205. Surgery, general and traumatic, and anesthesia

Professors Humphreys (*Surgery*), Stinchfield (*Orthopedic Surgery*), and Papper (*Anesthesiology*), and the departmental staffs. Five days a week for six weeks.

Includes *Surgery 211–212, Orthopedic Surgery 203–204,* and *Anesthesiology 204S.*

Surgery 211–212. Practical instruction in surgical pathology

Professor Lane. Two hours a week for five and one-half weeks.

Combined with *Surgery 204–205.*

► FOURTH YEAR

Anesthesiology 213S. Clinical clerkship

Professor Papper and the departmental staff. One week.

Practical anesthesia in the operating rooms of Presbyterian Hospital, with a preceptor. *Part of Surgery 213–214.*

Dermatology 205–206. Dermatology and syphilology

Professors Miller and Nelson; Drs. Chester, Gore, and Hearin; and the departmental staff. Seven hours a week for one month.

Medicine 205–206. Combined clinics

Professor Christy and associates. One and one-half hours a week for thirty weeks.

Continued from the third year.

Medicine 207–208. Outpatient clinical clerkships (Group Clinic)

Professor Lamb (*in charge*). Two months.

Combined with *Surgery 209–210.*

Medicine 209–210. Medical therapeutics and applied pharmacology

Professors Southworth (*in charge*) and Hofmann (*Pharmacology*). One lecture a week for sixteen weeks.

Given with *Pharmacology 202.* May be taken in the third year as an elective.
Practical management, including home care, of major medical problems; review of the pertinent pharmacology.

Medicine 221–222. Clinical clerkships on the wards at Bellevue Hospital

Professor Ragan and associates.

Students may substitute *Surgery 217–218* for this course.

Medicine 223–224. Clinical clerkships in chronic diseases of the chest at Bellevue Hospital

Professor McClement and associates.

Medicine 225–226. Medical and surgical conferences at Bellevue Hospital

Professors Ragan and Ferrer (*Surgery*) (*in charge*).

Neurology 202. Clinical lectures and demonstrations in neurology

Professors Merritt, Pool, and Vicale. One and one-half hours a week for twenty weeks.

Obstetrics and Gynecology 203–204. Practical work in obstetrics and gynecology

Members of the departmental staff.

The practical work in the obstetrics and gynecology class is given in six sections, each section receiving eight and one-half weeks of instruction. During this period each section is divided into four groups:

1. *Obstetrics at Sloane Hospital for Women—Labor and Delivery Floor:* Day and night duty; lodging furnished by the hospital. Seminars, ward rounds, and assignment to patients in labor for actual delivery under the direction of the attending staff.
2. *Obstetrics at Sloane Hospital for Women—Obstetrical Wards:* Seminars, ward rounds, and clinical clerkship.
3. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic:* Prenatal and postnatal clinics. Gynecology clinics.
4. *Gynecological Service at Sloane Hospital for Women—Gynecological Wards:* Seminars and ward rounds. Students act as clinical clerks in gynecology wards and follow the surgical care of patients.

Orthopedic Surgery 205–206. Practical instruction in orthopedic surgery, including fractures and dislocations

Professors Stinchfield and McLaughlin and the departmental staff. Twenty-four hours: fourteen of seminar, ten in clinics and wards.

Pediatrics 203–204. Clinical clerkships in pediatrics

Professors Curnen and Mellin and associates. One month. At Babies Hospital.

Pharmacology 202. Medical therapeutics and applied pharmacology

Professors Hofmann and Southworth (*Medicine*). One conference a week for sixteen weeks.

The same course as *Pharmacology G8002y*.
Given with *Medicine 209–210*. May be taken in the third year as an elective.
Practical management, including home care, of major medical problems; review of the pertinent pharmacology.

Psychiatry 205. Clinical psychiatry: principles and practice of psychotherapy for medicine

Drs. D. Kornfeld and G. Wilkie and clinical faculty. One and one-half hours a week for ten weeks.

Discussions; demonstrations of short-term psychotherapy by a member of the faculty, using closed circuit television; weekly seminars; supervision in psychiatric aspects of medical practice in group medical clinic.

Radiology 203–204. X-ray interpretation

Professors Alpert, Baker, Seaman, Taveras, and Wells. Four hours of conference a week for four weeks.

Surgery 209–210. Outpatient clinical clerkships

Professor Humphreys and the departmental staff. Two months.

Combined with *Medicine 207–208*.

Surgery 213–214. Clinical clerkship in surgery

Professor Humphreys and the departmental staff. Five days a week for two months. At Mary Imogene Bassett, Bellevue, Presbyterian, Roosevelt, or St. Luke's Hospital.

Surgery 217–218. Clinical clerkships at Bellevue Hospital

Professor Ferrer and assistants.

Students may substitute *Medicine 221–222* for this course.

Urology 201–202. Clinical clerkships in urology in the Squier Urological Clinic

Professor Lattimer and the departmental staff.

Lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, roentgen diagnosis, and pathological demonstrations. Patients are studied on the wards. Term paper required.

► ELECTIVES

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses; as a rule, they may be taken only in the third and fourth years. Students may arrange for electives at the beginning of any period and will be held responsible for attendance and the passing of examinations. Elective courses may not, ordinarily, be credited toward the degree. However, specially qualified students in the fourth-year class may, upon nomination by the head of a department and with the permission of the Committee on Instruction, substitute elective courses or research in that department for certain prescribed courses.

Additional courses in the basic medical sciences are offered under the Faculty of Pure Science; see the bulletin of the Graduate Faculties.

For information about graduate courses in dermatology, neurology, otolaryngology, and surgery, consult the office of the Dean.

ANATOMY: SUMMER SESSION 1963

Anatomy S4001G. Introduction to human anatomy

Professor Ely and assistant. July 1–August 9. MTuWThF 2–5. Second year.

Structure and function of the human body. Laboratory study of the dissected body, with accompanying lectures and demonstrations.

Anatomy S4007G. Microscopic anatomy

Professors Noback and Brandt. July 1–August 9. MTuWThF 9–12. Second year.

An introductory course in general histology, dealing with the structure and function of the tissues and organs of the body, based largely on the study of human material.

ANESTHESIOLOGY

Anesthesiology 201. Practical anesthesiology in Presbyterian Hospital

Professor Papper and the departmental staff. Six or twelve weeks. Third year.

Limited to three students.

Anesthesiology 212. Research in anesthesiology

Professors Papper and Nahas and the departmental staff. Hours to be arranged. Third and fourth years.

Limited to two students.

BIOCHEMISTRY

Biochemistry G4027x–G4028y. Introductory biochemistry

The departmental staff. TuTh 9, F 11 or 12.

Required of all Ph.D. candidates in the department.
Prerequisite: organic and physical chemistry and the permission of the department.
The chemistry and metabolism of the cellular constituents. Wherever possible this knowledge is used to examine control mechanisms, biochemical genetics, and comparative biochemistry.

Biochemistry G6011x–G6012y. Special methods of biochemistry

The departmental staff. Hours to be arranged. Third and fourth years.

Eligibility to be determined on consultation.
Study and discussion intended to prepare the student for research or practical application.

Biochemistry G6028. Enzymes. The staff. Not given in 1963–1964.

Biochemistry G6030y. Chemistry and biochemistry of the carbohydrates. The staff. Not given in 1963–1964.

Biochemistry G6032. Nucleic acids. The staff. Not given in 1963–1964.

Biochemistry G6034. The proteins. The staff. Not given in 1963–1964.

Biochemistry G8040y. Introduction to x-ray crystallography

Professor Low. Lect: TuTh 1. Lab: 5 hours to be arranged. Fourth year.

Prerequisite: the instructor's permission.
Crystal symmetry, production and properties of x-rays; optical principles of x-ray diffraction; crystal-structure analysis; discussion of crystal-structure analyses of chemical and biochemical interest.

Biochemistry G9001x–G9002y. Seminar on selected topics in biochemistry

The departmental staff. W 4:40–6:30. Fourth year.

Ph.D. candidates and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

Biochemistry G9015x–G9016y. Research in biochemistry

The departmental staff. Hours to be arranged. Third and fourth years.

Prerequisite: the permission of the department.

DERMATOLOGY

Dermatology 101T. Medical mycology

Professor Silva. Eight hours a week for twelve weeks. Second year.

Given with *Microbiology 118T*.
Lectures and laboratory.

Dermatology 207–208. Outpatient clinic clerkships

Members of the departmental staff. Five afternoons a week for one month. Third and fourth years.

Dermatology 219–220. Histopathology of the skin

Dr. L. Shapiro. Hours to be arranged. Fourth year.

MEDICINE

Medicine 209–210. Medical therapeutics and applied pharmacology

Professors Southworth (in charge) and Hoffman. Third and fourth years.

A two-year sequence of sixteen lectures.

Medicine 227–228. Special clinics at Presbyterian Hospital

Third and fourth years.

Morning clinics:

A. *Diabetes*. Professor Pines. MWF, Floor 2. Limited to six students.
B. *Thyroid*. Professors Werner and Aranow. F, Floor 10. Limited to six students.
C. *Nephritis and hypertension*. Professor Laragh. Tu, Floor 2. Limited to four students.

Afternoon clinics:

D. *Allergy*. Professor Sherman. MTuThF, Floor 10. Limited to two students.
E. *Cardiac*. Professor M. I. Ferrer. F, Floor 10. Limited to four students.
F. *Arthritis*. Professor Christian. WF, Floor 10. Limited to four students.
G. *Combined endocrine*. Professor Werner and associates. Tu, Floor 3. Limited to six students.
H. *Gastrointestinal*. Professor Flood. MWF, Floor 3. Limited to two students.

Prerequisite: the third-year clinical clerkship in medicine.
Applications for work in these clinics should be made to the secretary of the department one week before the beginning of the quarter. Assignments are announced three days before the beginning of the quarter.

Medicine 229–230. Differential diagnosis

Professor Kneeland. Fourth year.

At the beginning of class, abstracts of histories are distributed, and the diagnosis, not known by

students or instructor, is handed to the instructor. Discussion of the diagnosis and presentation of pathological material follow.

Medicine 231–232. Research

Professor Bradley (in charge). Third and fourth years.

Open to qualified workers. Research in the clinical laboratories of the department.

Medicine 235–236. Elective clinical clerkship

Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals. Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

MICROBIOLOGY

Microbiology 118T. Medical mycology

Professor Silva. Eight hours a week for twelve weeks. Second year.

Given with *Dermatology 101T*. Lectures and laboratory

Microbiology 251FSTFo. Research in problems of microbiology, immunology and immunochemistry

The departmental staff. Hours to be arranged. Third and fourth years.

Laboratory.

NEUROLOGY

Neurology 241–242. Ward clinical clerkships

Professor Merritt and the departmental staff. Five mornings a week, 9–12; five afternoons a week, 2–5; for eleven weeks. Third year.

ORTHOPEDIC SURGERY

Orthopedic Surgery 207–208. Clinical instruction on wards, in outpatient department, and in operating room

The departmental staff. Third year.

OTOLARYNGOLOGY

Otolaryngology 225–226. Research in otolaryngology

Professors Fowler and Tonndorf. Hours to be arranged. Third and fourth years.

Otolaryngology 227–228. Ward clinical clerkship

Professor Fowler, Dr. Savetsky, and the departmental staff. Fourth year.

Prerequisite: a clerkship in medicine and surgery.

PATHOLOGY

Pathology G9051x–G9052y. Research in pathology

Professors McKay and Spiro and members of the departmental staff. Hours to be arranged. Third and fourth years.

PHARMACOLOGY

Pharmacology 229–230. Research in pharmacology

The departmental staff. Hours to be arranged. Third and fourth years.

Eligibility to be determined on consultation.

Pharmacology-Physiology G9501x–G9502y. Seminar

The departmental staff. Third and fourth years.

Graduate students meet for one hour weekly to discuss recent advances in these disciplines.

PHYSICAL MEDICINE AND REHABILITATION

Physical Medicine and Rehabilitation 201. Special work

Professor Darling and the departmental staff. Third year.

Open to a limited number of students for special work during one quarter of the year.

Other courses are listed in the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

Physiology G8001x–G8002y. Advanced physiology

Professor Taggart and the departmental staff. TuTh 3–5. Lab: by arrangement. Third and fourth years.

History of physiology and modern experimental methods. Practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, and the like.

Physiology G9051x–G9052y. Research in physiology

Members of the departmental staff. Hours to be arranged. Third and fourth years.

Eligibility to be determined on consultation.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

Students interested in electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, and the like should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the appropriate professor.

A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

An elective in medicine in the tropics is available to fourth-year students who serve in hospitals in Liberia and Surinam.

PSYCHIATRY

Psychiatry 219–220. Psychological methods

Professors Carr and Thetford. Forenoons, twice a week. Third and fourth years.

Theories and exercises in clinical psychology. Limited to two students.

Psychiatry 221–222. Elective

Professor P. Polatin and the departmental staff. Hours to be arranged. At the Psychiatric Institute and Presbyterian Hospital. Third year.

Psychiatry 223–224. Clinical elective

Professors Kaufman, Cotton, or Laidlaw. Hours to be arranged. At Mt. Sinai, St. Luke's, or Roosevelt Hospital. Third year.

Psychiatry 225–226. Research elective

Professors Kolb, Schachter, and research faculty. Hours to be arranged. All four years.

Research stipends are available for elective periods during the year for special work with various divisions of the department.

RADIOLOGY

Radiology 213. Clinical radiology

Professors Alpert, Ellis, Schlaeger, Schwarz, Seaman, and Taveras. Four- to six-week periods throughout the year. Third year.

A clinical clerkship in roentgen diagnosis and radiotherapy, including roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment and follow-up care of the patient with cancer.

SURGERY

Surgery 221–222. Research in surgical laboratory

Professor Habif and assistants. Given throughout the year. Third and fourth years.

Specific problems are assigned; they may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225. Tissue culture as a research method

Professor Murray and assistants. One hour lecture and three hours laboratory. November 1 to February 1. Third and fourth years.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of the results.

► SUMMARY OF STUDIES (IN HOURS)

FIRST YEAR

	HOURS		HOURS
Anatomy 101F	161	Medicine 114Fo	6
Anatomy 102ST	272	Physiology 101STFo	185
Anatomy 103FSTFo	77	Psychiatry 101FST	30
Anatomy 106TFo	140	TOTAL	1,061
Biochemistry 101F	190		

SECOND YEAR

Medicine 101T	99
Medicine 102T	88
Medicine 104T	10
Microbiology 101F	151
Microbiology 105F	52
Neurology 101T	20
Pathology 101FST	271
Pathology 102S	36
Pharmacology 101FS	132
Psychiatry 102T	20
Public Health 101F	11
Public Health 101T	55
Surgery 101S	11
Surgery 102T	60
TOTAL	1,016

THIRD YEAR

Dermatology 203–204	34
Medicine 201–202, 203–204, 205–206	447
Neurology 207–208, 209–210	38
Obstetrics–Gynecology 201–202	56
Ophthalmology 201–202, 203–204	42
Orthopedic Surgery 201–202, 203–204	80
Otolaryngology 201–202, 203	40
Pediatrics 201–202, 207–208	208
Psychiatry 203–204	147
Public Health 203–204, 205, 206	85
Radiology 201–202, 205, 206	24
Surgery 201–202, 204–205, 211–212	219
Electives	385
TOTAL	1,805

FOURTH YEAR

Dermatology 205–206	28
Medicine 205–206, 207–208, 209–210, 221–222, 223–224, 225–226	465
Neurology 202	30
Obstetrics and Gynecology 203–204	280
Orthopedic Surgery 205–206	24
Pediatrics 203–204	140
Pharmacology 202	16
Psychiatry 205	15
Public Health 205	16
Radiology 203–204	16
Surgery 209–210, 213–214, 217–218	292
Urology 201–202	36
Electives	280
TOTAL	1,638

► SPECIAL PROGRAMS

PROGRAMS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

A limited number of students may be accepted in the basic science departments of the College—Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, and Physiology—and in the Subcommittee on Biophysics (see below). Because of limited facilities only candidates for the Ph.D. degree are accepted. Work toward the degree in the basic science departments is under the jurisdiction of the Faculty of Pure Science of the University and must receive approval by the departmental

chairman concerned. Admission and degree requirements and courses of instruction are given in the bulletin of the Graduate Faculties.

A student may also plan a combined program leading to the award of both the M.D. and the Ph.D. degrees. He may begin such a program either in the College or under the Faculty of Pure Science, but he may not be registered in the two faculties concurrently. It is usually to his advantage to complete the requirements for the M.D. degree first, since some of the required medical courses and elective research opportunities may be credited toward the Ph.D. degree. A student interested in a combined program should consult the chairman of the basic science department in which he plans to major and the Associate Dean of the Faculty of Medicine.

RESEARCH IN RESIDENCE

A graduate student who wishes to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence (see the schedule of fees).

PROGRAMS IN PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

Special programs of study, approximately two years in length, leading to the award of the degree of Bachelor of Science in physical therapy and in occupational therapy are offered through the Department of Physical Medicine and Rehabilitation. Programs leading to the award of a Certificate of Training are offered for students who have already earned the B.S. degree or who are graduates of nationally accredited schools of nursing. Details are given in the bulletin of Courses in Physical Therapy and Occupational Therapy.

PROGRAM OF THE PSYCHOANALYTIC CLINIC

A course of training in the theory and practice of psychoanalytic medicine is offered through the Psychoanalytic Clinic for Training and Research of the Department of Psychiatry. The program, a minimum of four years in length, leads to the award of a Certificate in Psychoanalytic Medicine. For details, see the bulletin of the Psychoanalytic Clinic.

Certificate candidates who wish to be considered for acceptance as candidates for the degree of Doctor of Medical Science may request further information from the Office of the Dean of the Faculty of Medicine.

PROGRAM IN RADIOLOGICAL PHYSICS

A student who holds a bachelor's degree or the equivalent with a major or a strong minor in physics may be eligible for admission to the full-time, integrated course in radiological physics leading to the award of the Master of Science degree. The course, which is given throughout the academic year, consists of lectures, seminars, conferences, and laboratory work designed to prepare the student to carry out all the functions of a physicist in a hospital department of radiology or to engage in applied or theoretical research. The class is limited to six students.

Further information may be obtained from the office of the Department of Radiology.

PROGRAM IN BIOPHYSICS

The program of study in biophysics, which leads to the award of the degree of Doctor of Philosophy, is under the jurisdiction of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics. Information about admission and degree requirements and courses of instruction is given in the bulletin of the Graduate Faculties.

The Postgraduate Program

Opportunities for medical training beyond the M.D. degree are offered at Columbia University through three major programs: 1) the training of specialists by means of hospital residencies; 2) the Doctor of Medical Science program, for physicians with particular interest and competence in research in the basic sciences; and 3) special courses in general medicine and in the specialties, for practicing physicians and physicians in training who wish to renew and continue their educational experiences in the various fields of medicine. Further information about these programs may be obtained from the Office of the Dean of the Faculty of Medicine.

TRAINING OF SPECIALISTS

The program offers training opportunities through fellowships at the College of Physicians and Surgeons and residencies at affiliated hospitals for holders of the M.D. degree who have completed hospital internships. Proper training for specialization includes three major elements: First, it provides a comprehensive clinical experience as a resident in a hospital that is equipped and staffed to provide graded responsibilities under the supervision of experts in the selected specialty. Second, it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience through advanced training in those medical sciences that are largely concerned with his specialty. Finally, it gives the student the opportunity, either as a resident or as a fellow, to do basic or clinical research. This in turn may stimulate the type of creative productivity that may earn him a recommendation that he be admitted to a program leading to the award of the Doctor of Medical Science degree.

PROGRAM FOR THE DOCTOR OF MEDICAL SCIENCE DEGREE

The University confers the Med.Sc.D. degree upon a few physicians who have completed a research project in one of the basic science fields. Only staff members of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the basic science field is required. Additional requirements include completion of a significant and original research project, the passing of a comprehensive and an oral examination, and submission of a dissertation.

COURSES FOR PRACTICING PHYSICIANS AND SPECIALISTS

A variety of short courses have been organized at hospitals and clinics affiliated with the University; they are available at the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hospital for Joint Diseases. No University credit or certificates are granted for these courses.

Courses for the general practitioner furnish opportunities for him to keep abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention; and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is limited to those who have the preparation necessary to enable them to benefit by the advanced instruction.

Admission, Registration and Expenses

Entering classes are enrolled in the College once each year in September. The minimum requirement for admission is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a bachelor's degree. The Committee on Admissions gives priority to the more advanced students.

The college program must have included English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may have concentrated on any subject—in the natural sciences, social sciences, humanities, or arts—but evidence of a balanced education, as well as demonstrated ability in the natural sciences, is preferred.

APPLICATION PROCEDURE

Application for admission must be filed on a special form which may be obtained from the Office of the Dean of the Faculty of Medicine. Applications are accepted only for the next incoming class; requests for application forms may be submitted one year in advance of matriculation. The completed form must be accompanied by the application fee of $15. The fee helps to cover the cost of processing the application; it is therefore not returnable and is not credited toward tuition.

If a personal interview is required in connection with the application, it will be requested by the Dean's Office.

SELECTION OF STUDENTS

The Committee on Admissions devotes months to the task of selecting a class of 120 from a very large number of applicants. Obviously there will be many well-qualified students whom the College will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who,

therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

ACCEPTANCE FEE

A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for $50, payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 15, he must notify the Dean and send his $50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the College in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition.

ADMISSION TO ADVANCE STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the College should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the College should communicate with the Dean.

Applicants from other countries must have command of the English language and must have fulfilled all admission requirements, including at least three years of study in the liberal arts and sciences (not under a faculty of medicine). A personal interview is required of foreign students; hence, candidates cannot be considered in advance of their arrival in the United States.

► REGISTRATION

Before attending classes, each student must register in person during the registration period (see the Academic Calendar). He goes to the Office of the Regis-

trar, files a registration blank giving such information as may be required, and pays his fees. The office, on the second floor of the College building, is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays.

REGULATIONS

Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

The privileges of the University are not available to any student until he has completed his registration. Since, under the University statutes, payment of fees is part of registration, no student's registration is complete until his fees have been paid. No student is permitted to attend any University course for which he is not officially registered unless he has been granted auditing privileges. No student may register after the stated period unless he obtains the written consent of the proper dean or director.

ATTENDANCE

Students are held accountable for absences incurred owing to late enrollment. Any student whose religious duties conflict at any time with academic requirements should apply to his dean or director for an equitable solution.

ACADEMIC DISCIPLINE

The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems proper. The disciplinary authority of the University is vested in the President and, subject to his reserved powers, in the dean of each faculty and the director of the work of each administrative board.

HONOR CODE

Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgement of this understanding at the College. Each student is expected to abide by it.

► FEES

The following fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

COMPREHENSIVE FEE

For all students for one academic year, payable in two installments	$ 100.00

TUITION

For the full course in medicine for one academic year (or equivalent), payable in two installments	1,600.00

RESEARCH IN RESIDENCE

During the academic year, for any period or part of a period not longer than an autumn term or spring term (see below)	50.00
During the summer, for the period or part of the period between Commencement and September registration	25.00

STUDENT HEALTH AND HOSPITAL FEE

For all students, per academic year (see below)	50.00

APPLICATION FEES AND LATE FEES

For admission	15.00
For each special examination	10.00
For renewal of application for a degree	1.00
For late registration	6.00
For late application, or late renewal of application, for a degree	5.00

PAYMENT OF FEES

Tuition and the comprehensive fee are payable each term in advance and as part of registration. If these fees are paid after the last day of registration a late fee of $6.00 will be imposed. Checks for tuition and fees should be drawn to the order of Columbia University.

WITHDRAWAL AND ADJUSTMENT OF FEES

A student in good academic standing who is not subject to discipline will always be given an honorable discharge if he wishes to withdraw from the University. If he is under twenty-one years of age, his parent or guardian must first give consent in writing to the Dean.

If a student withdraws from the College, a partial return of the tuition may be authorized by the Registrar. He must notify the Registrar in writing at once; any adjustment of the tuition he has paid is reckoned from the date on which the Registrar receives this written notification. The comprehensive fee, the student health and hospital fee, application fees, late fees, and special fees are not refundable.

The Dean may, for a valid reason, grant a leave of absence to a student in good standing.

UNDUE BREAKAGE

Although no deposit is required of students to cover laboratory material and ordinary breakage, a charge will be made for any unusual amount of breakage.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2–200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization are taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

The student health and hospital fee is used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service.

APPLICATION, OR RENEWAL OF APPLICATION, FOR A DEGREE

A candidate for the M.D. or Med.Sc.D. degree must file application for the degree by March 1 of the year in which he expects the degree to be awarded. Announcement of the date and procedure is posted on the bulletin boards each spring. If the degree is not earned as expected, the application may be renewed the following year for a fee of $1.00. The M.D. and Med.Sc.D. degrees are awarded in June; the Ph.D. degree is awarded whenever the candidate completes the requirements.

► ESTIMATED EXPENSES

The approximate cost of attending the College for an academic year is as follows:

	Average	*Minimum*
Tuition and fees	$1,750	$1,750
Room in Bard Hall	350	250
Board	700	650
Books and instruments (except microscope)	200	150
Laundry and dry cleaning	150	50

In addition, each student should budget an average of $350 (minimum $250) for such items as clothing, travel, dues to organizations, amusements, and sundries.

MICROSCOPE, INSTRUMENTS, AND BOOKS

Each entering student is required to provide himself with a microscope of standard make fitted with the following attachments:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens
6. Substage lamp

These are the minimum microscope requirements. Most students will prefer to have a microscope with a quadruple nosepiece carrying a low power scanning objective in addition to the 16mm., 4mm., and oil immersion objectives.

The cost of a suitable reconditioned microscope varies from $100 to $230 depending on the age, make, and model. The standard prices of new microscopes range from $425 to $640. Microscopes may be rented at $8 a month or $70 for a school year. A limited supply of binoculars are also available for rental at $15 a month or $130 a school year.

Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

The books required or recommended for courses of instruction are announced at the beginning of the year.

► HOUSING

Rates for accommodations at Bard Hall range from $318 to $525 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-a-week, fifteen-meal, prepaid board plan; the present rate is $400 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

Financial Aid

A *fellowship* is an academic award of honor accompanied by a stipend to be used by the fellow in the furtherance of his studies or research. Fellows are not required to render any service to the University or the donor; rather, they are to devote their entire time to their own work. There is no restriction on a fellow's publication of his studies or research as a condition of the grant. A fellow may not engage in any remunerative employment while holding a fellowship unless the Dean gives his written consent.

A *scholarship* is an award, on grounds of scholarly competence and need, of a stipend to be used by the scholar in the furtherance of his studies or research. The same rules of tenure apply as those governing fellowships except that scholars may engage in remunerative employment without the consent of the Dean. Scholarship stipends are usually smaller than fellowship stipends.

Fellowships and scholarships are usually awarded for no more than one academic year. They may be canceled at any time for failure to maintain a satisfactory academic standard or to comply with the terms of the award. Fellows and scholars, except those holding traveling fellowships, are expected to reside in New York City or its vicinity during the academic year, unless written permission is granted by the Dean to study elsewhere.

Dates of application and further information may be obtained from the Office of the Dean.

FELLOWSHIPS

Area Institute. Varying in number; from $2,500 to $3,500 each. Open to graduates of, or second-year students in, the professional schools of the University; for work toward certificates in the regional institutes. An applicant is required to give the major portion of his time to the area program; he should discuss his program with the appropriate institute director before applying.

Bache, Jules S. (1945). Open to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in obstetrics and gynecology. Given by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache.

Barnes-Foster (1950). About $5,000. Open to women graduate students for work in gynecology.

Baruch, Bernard M. Two or three; awarded annually; about $2,500 each. For graduate study in physical medicine and rehabilitation. From the Bernard M. Baruch Gift to Columbia University.

Beekman, Gerard (1940). Awarded annually; about $5,000. Given by the Beekman Family Association.

Cutting, William Bayard, Traveling (1913). Two; awarded annually; about $5,000 each. Open to men who have been in residence as candidates for higher degrees under the Graduate Faculties for at least one academic year and to graduates of the University in law, medicine, architecture, or music who have had at least one additional year of graduate study in the University. Given by Mrs. William Bayard Cutting, in memory of her husband, William Bayard Cutting, LL.B. '71, M.A. '72.

Du Bois, Abram. Awarded annually; about $1,700. Open to a graduate of the College; for specialization in diseases of the eye or for studies in surgical pathology. The holder devotes his time to clinical and laboratory study, at home or abroad. Given by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835.

Ellis, George W. Awarded annually; about $5,000. Open to graduates of recognized Vermont colleges. Reappointment: for a student in medicine, not more than three additional years.

Gay, Frederick Parker, Memorial. Awarded annually; about $4,500. For graduate work in bacteriology; awarded on the nomination of the chairman of the Department of Microbiology.

Gies, William J. Awarded annually; about $3,300. For graduate study in biochemistry; awarded on nomination of the chairman of the Department of Biochemistry.

Holt, L. Emmett. Awarded annually; about $4,000. Open to a student of the graduating class of any medical school or to a graduate of not more than six years standing; for the study of diseases of children, in this country or abroad. Reappointment: for not more than one additional year.

James, Walter Belknap, Research. Awarded annually; about $5,000. Open to a graduate in medicine; for advanced study in medicine either at the University or elsewhere.

Koplik Children's Scholarship. Awarded every other year; about $3,500. Open to a physician under thirty years of age who has shown special aptitude for original work in the investigation of the diseases of children.

Lambert, Samuel W. and Elizabeth W., Traveling (1948). For specialization in surgery. Given in memory of Samuel W. and Elizabeth W. Lambert.

Proudfit, Maria McLean. Awarded every four years; about $2,600. Open to a son of native-born American parents; for advanced studies in internal medicine. The holder must remain unmarried for the duration of the fellowship. Given by Alexander Moncrief Proudfit, A.B. '92. Next award: 1965–1966.

Romaine, DeWitt C. (1946). For medical research in the College. Given by the estate of C. Everetta Romaine.

Ryle, Dorothy, Research (1950). For research in neurology. Given by Thorneycroft Ryle.

Tilney, Frederick, Memorial Fund. For such research projects in neurology as may be recommended from time to time by the chairman of the Department

of Neurology, the Dean of the Faculty of Medicine, and the President of the Board of Trustees of the Presbyterian Hospital. Given by the Frederick Tilney Memorial Fund, Inc.

Tucker, Ervin Alden. Awarded annually; about $5,000. For graduate study in obstetrics. Given by Mrs. Ervin Alden Tucker.

SCHOLARSHIPS

Alumni. A limited number of national scholarships. Provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. Several; awarded annually. From an anonymous donor.

Banbury (1955). Open to students enrolled in the College. From the Banbury Scholarship Fund.

Bernheim, Isaac J. and Rena Henly. To be awarded annually. Given by the family in honor of Isaac J. and Rena Henly Bernheim.

Blumenthal, George, Jr. Several. From the George Blumenthal, Jr., Fund.

Buchman, Dr. Moses R., Memorial (1957). Open to undergraduate medical students, with preference given to those who are residents of Westchester and who plan to practice pediatrics. Established by friends of Dr. Buchman.

Bull, David C., Memorial (1959). In memory of Dr. David C. Bull, a former member of the Department of Surgery.

Butler, Richard. Open to men born in the state of Ohio who are qualified for admission to, and plan to enter, Columbia College, one of the Graduate Faculties, or the Schools of Law, Medicine, or Engineering. Reappointment: not more than two additional years.

Clark, Alonzo. Awarded annually. Founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons.

Class of 1890. Awarded annually. Given by a member of the class.

Class of 1899. Awarded annually. For a resident scholarship. Given by the class in commemoration of the thirty-fifth anniversary of its graduation.

Class of 1912. Awarded annually. Given by the class on the fifteenth anniversary of its graduation.

Class of 1920. Awarded annually. Given by the class on the twenty-fifth anniversary of its graduation.

Class of 1932. Awarded annually. For a scholarship room. Given by the class on the twenty-fifth anniversary of its graduation.

Class of 1933. For a scholarship room.

Class of 1936. Awarded annually. Given by the class on the twenty-fifth anniversary of its graduation.

Class of 1953. Awarded annually. Given by members of the class.

DeAngelis, Anthony M. (1958). Open to a student of the fourth-year class. Given by Dr. Anthony M. DeAngelis.

Dennett, Horace. Several; awarded annually. Open to students in the third- and fourth-year classes whose records of ability and scholarship give evidence of special fitness.

Detwiler, Samuel R., Memorial (1957). Awarded annually. Given by Dr. Detwiler's friends and colleagues.

Devendorf, David M. Preference is given to a candidate from Herkimer County, New York, preferably one from the town of Herkimer. Given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861.

Doughty, Francis E. Given by Miss Phoebe Caroline Swords, in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner, Joseph Herman and Hannah (1941). Awarded annually. Founded by the will of Benjamin Bernard Eichner, Class of 1919.

George and Charlie (1942). Awarded annually. Given by the Alumni Association of the College, in memory of George Peters and Charles Costello.

Hanlon, John F. Awarded annually. Given by members of the Class of 1951, in memory of their classmate, John F. Hanlon.

Harsen, Jacob (1859). Five; awarded annually: two to students in the second-year class, two to students in the third-year class, and one to a student in the fourth-year class. Given by Jacob Harsen, M.D.

Hartley, Frank (1914). Given by friends and colleagues of Dr. Frank Hartley, Class of 1880.

Hemingway, William H. Several; awarded annually; to cover tuition.

Himmelstein, Aaron, Memorial (1960). Awarded annually. Open to undergraduate medical students. Given by Dr. Himmelstein's friends and colleagues.

Huber, Francis. Awarded annually. Open to a graduate of any institution other than Columbia University, the College of the City of New York, Barnard College, and Hunter College. Given by Francis Huber, M.D.

Huber, Viola B. Awarded annually. Open to a graduate of Hunter College. Given by Francis Huber, M.D.

Jacobi, Abraham. Four; awarded annually; two to graduates of Columbia University and two to graduates of the College of the City of New York. Given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi.

Loeb, Robert F., Educational Gift (1961). For the education of children of full-time staff members.

McAneny, Marjorie. Awarded annually. Open to a graduate of Barnard College Given by Francis Huber, M.D.

Markoe, Francis Hartman. Awarded annually. Given by Madeline Shelton Markoe, in memory of her husband.

Rappleye, Willard Cole. Established at the retirement of Dean Rappleye.

St. John-Princeton (1955). Open to graduates of Princeton University who have been admitted to the College.

Saphir, Joseph F., Memorial (1960). Awarded annually. Given by Elsa M. Saphir, in memory of her husband, Joseph F. Saphir, Class of 1902.

Severinghaus, Aura E. (1962). Awarded annually. Given by faculty members, alumni, and students.

Stewart, Edgar Eginton, Jr., Memorial. Awarded annually. Given by Dr. E. E. Stewart, in memory of his son.

Vollmer, Hermann. Awarded annually. Open to candidates in medicine. Established in his memory by his wife.

Vosseler, Theodore L. Awarded annually. Preference is given to graduates of Colgate University. Given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler.

Wechsler, Robert M. Awarded annually. Given by Dr. I. S. Wechsler, in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945, in memory of their classmate.

Wilson, Dr. James Lancelot. Awarded annually. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

With the exception of the Stevens Triennial Prize, all awards are made annually.

Coakley Memorial Prize. $200. Awarded by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year.

Cock, Thomas F., M.D., Prize. About $150. Awarded to the student in the College who submits the best thesis on puerperal fever. Given by bequest of Augustus C. Chapin.

Gay, Frederick Parker, Memorial Award (1948). About $30. Awarded to a student doing outstanding work in microbiology who is chosen by the chairman of the Department of Microbiology and the Dean of the Faculty of Medicine. Given by Mrs. Frederick Parker Gay, in memory of her husband.

Janeway Prize. About $100. Awarded to the student graduating from the College who, in the opinion of the Faculty, has ranked highest in efficiency and ability. Given by bequest of Matilda S. J. Wisner.

Meierhof, Dr. Harold Lee, Prize. About $100. Awarded by the Professor of Pathology to the student who, in his opinion, has done the best work in the field

for the current year. Given by the parents of Dr. Harold Lee Meierhof, Class of 1917.

Parker, Joseph Garrison, Award. Awarded to the senior in the College who best exemplifies, through a continued personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. Given by Dr. and Mrs. Philip Parker, in memory of their son, Joseph, Class of 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Psychiatry, Department of, Prize. About $50. Awarded by the Department of Psychiatry to a second-year student for the best work in psychopathology.

Sciarra, Helen M., Prize. About $100. Awarded to the fourth-year student who has done the best work in the third-year neurology elective.

Smith, Joseph Mather, Prize. About $700. Awarded to the graduate of the College whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious.

Stevens Triennial Prize. About $500. Awarded triennially to the person, not necessarily a graduate of the College, who submits the best essay or original research on any medical subject.

Watson, Dr. William Perry, Foundation in Pediatrics Prize (1921). About $370. Awarded to a member of the graduating class who has been in attendance for at least two years and who has shown the most efficient work in the study of the diseases of infants and children during the regular course at the College.

STUDENT LOANS

Loan funds are provided by Columbia University in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

A National Defense Student Loan Program, administered by the University, is available through the Department of Health, Education, and Welfare. Students who are legal residents of New York State are eligible for loans and for New York State Scholar Incentive Awards through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's Office.

Limited funds are available periodically for loans to medical students in emergencies. These funds, administered by the Dean, come from gifts by classmates and friends in memory of John Adams Mahew, Class of 1955, and from other sources.

STUDENT EMPLOYMENT

The Dean's Office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions

for medical students is maintained. Because of the heavy schedule of the College it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

The wives of medical students will find many opportunities for employment at the Medical Center, and those who are interested should notify the Dean's Office.

Student and Alumni Activities

All students enrolled in the College enjoy the privileges and facilities of the University campus, including the University libraries, the Placement Office, and the various student activities.

P&S CLUB

The P&S Club is now in its sixty-ninth year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of the Director of Student Activities, Mr. Edwin M. Barton.

A faculty board of advisers assists the students and the Director in the operation and support of the club program. Every matriculated student in the College of Physicians and Surgeons is automatically a member and is invited to participate in the pursuits of his choice.

Among the activities sponsored by the P&S Club are an orientation program for new students, athletic contests, concerts, choir and vesper services, talks by guest lecturers, home visits with members of the faculty, and student-faculty visits.

In recent years, the Club has also sponsored conferences on such subjects as medicine and religion, and medicine and law, as well as on medical service appointments here and abroad.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a medical honor society, membership in which is based scholarship and character. A chapter was organized at the College of Physicians and Surgeons in 1907.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

After graduation, all students who are in good professional standing may become members of the Alumni Association of the College of Physicians and Surgeons by notifying the secretary, Dr. Lowyd W. R. Ballantyne, 630 West 168th Street, New York 32, N.Y., that they wish to join.

Departments of Instruction and Research

ANATOMY

PROFESSORS

Wilfred M. Copenhaver, *chairman*. *A.B., Western Maryland, 1921; Ph.D., Yale, 1925*
Malcolm B. Carpenter. *A.B., Columbia, 1943; M.D., Long Island, 1947*
Herbert O. Elftman. *A.B., California, 1923; M.A., 1925; Ph.D., 1929*
Frederick A. Mettler. *A.B., Clark, 1929; M.A., Cornell, 1931; Ph.D., 1933; M.D., Georgia, 1937; D.Sc., Clark, 1951*
Margaret R. Murray (assigned to Surgery). *A.B., Goucher, 1922; M.S., Washington University, 1924; Ph.D., Chicago, 1926*
George K. Smelser (assigned to Ophthalmology). *A.B., Earlham, 1929; Ph.D., Chicago, 1932*

ASSOCIATE PROFESSORS

Frederic J. Agate. *A.B., Columbia, 1932; Ph.D., 1949*
Charles A. Ely. *A.B., Washington and Jefferson, 1936; Ph.D., Wisconsin, 1949*
Melvin L. Moss. *A.B., New York University, 1942; D.D.S., Columbia, 1946; Ph.D., 1954*
Charles R. Noback. *B.S., Cornell, 1936; M.S., New York University, 1938; Ph.D., Minnesota, 1942*
George D. Pappas. *A.B., Bowdoin, 1947; Ph.D., Ohio State, 1952*
William M. Rogers. *B.S., Georgia, 1921; Ph.D., Cornell, 1927*

ASSOCIATE PROFESSOR OF DENTAL ANATOMY

Edmund Applebaum. *D.D.S., New York College of Dentistry, 1922*

ASSISTANT PROFESSORS

Philip W. Brandt. *A.B., Swarthmore, 1952; M.S., Pennsylvania, 1957; Ph.D., Columbia, 1960*
Richard P. Bunge. *A.B., Wisconsin, 1954; M.S., 1956; M.D., 1960*
Stanley M. Crain (assigned to Neurology). *A.B., College of the City of New York, 1943; Ph.D., Columbia, 1954*
Mary S. Parshley (assigned to Surgery). *A.B., Smith, 1933; M.A., Pennsylvania, 1935; Ph.D., 1938*
Shih-Chang Shen. *B.S., Yenching, 1933; Ph.D., Cambridge, 1939*

ASSISTANT CLINICAL PROFESSOR

Robin M. Rankow. *B.S., College of the City of New York, 1935; D.D.S., Columbia, 1940; M.D., Rochester, 1950*

RESEARCH ASSOCIATE

Mary B. Bunge

INSTRUCTORS

John V. Gazzola
Herman Gladstone
B. William Glick
James S. Harrison

INSTRUCTORS (*continued*)

Henry P. Levy
Julius K. Littman
Nancy L. Trotter

ANESTHESIOLOGY

PROFESSORS

Emanuel M. Papper, *chairman. A.B., Columbia, 1935; M.D., New York University, 1938*
Gabriel G. Nahas. *M.D., Toulouse, 1945; Ph.D., Minnesota, 1953*

ASSOCIATE PROFESSORS

B. Raymond Fink. *B.S.C., London, 1935; M.B., B.S., 1938*
Lester C. Mark. *M.D., Toronto, 1941*
Shih-Hsun Ngai. *B.M., National Central (Nanking), 1944*

ASSOCIATE PROFESSORS OF CLINICAL ANESTHESIOLOGY

Edgar C. Hanks. *A.B., Gettysburg, 1943; M.D., Jefferson, 1947*
Herman Schwartz. *A.B., New York University, 1944; M.D., 1946*

ASSISTANT PROFESSORS

Leonard Brand. *B.S., Yale, 1946; M.D., Columbia, 1949*
Robert M. Epstein. *B.S., Michigan, 1947; M.D., 1951*
Jean Henley. *A.B., Barnard, 1937; M.D., Columbia, 1940*
Ronald Katz. *A.B., Wisconsin, 1948; M.D., Boston, 1956*
Richard J. Kitz. *B.S., Marquette, 1951; M.D., 1954*
Vance Lauderdale. *A.B., Harvard, 1945; M.D., Columbia, 1947*
Richard W. Patterson. *A.B., Iowa, 1943; M.D., 1947*
Daniel M. Pino. *M.D., New York University, 1942*
Herbert Rackow. *B.S., Pennsylvania State, 1939; M.D., Howard, 1946*
Ernest Salanitre. *B.S., College of the City of New York, 1936; M.D., Rome, 1942*

ASSISTANT PROFESSOR OF PEDIATRICS

L. Stanley James. *M.D., Otago, New Zealand, 1948*

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Donald C. Brody
Mieczyslaw Finster
Lynne T. Greene
Joannes H. Karis
Richard S. Matteo

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Harold S. Small
Stuart F. Sullivan
Charles E. Wolf
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Alan I. Posner
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Mariagnes Verosky
Iris W. Schwartz

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ASSOCIATE

William F. Karl

► AT HARLEM HOSPITAL

ASSISTANT CLINICAL PROFESSOR

Herbert G. Cave. *M.D., Howard, 1947*

► AT MONTEFIORE HOSPITAL

CLINICAL PROFESSOR

Francis F. Foldes. *M.D., Pazmany Peter University (Budapest), 1934*

ASSISTANT CLINICAL PROFESSOR

Deryck Duncalf. *M.B., Ch.B., Leeds, 1950*

► AT MOUNT SINAI HOSPITAL

CLINICAL PROFESSOR

Leslie Rendell-Baker. *M.B., B.S., Guy's Hospital Medical School (London), 1941*

BIOCHEMISTRY

PROFESSORS

David Rittenberg, *chairman. B.S., College of the City of New York, 1929; Ph.D., Columbia, 1934*
Erwin Chargaff. *Ph.D., Vienna, 1928*
Samuel Graff. *B.S., Purdue, 1927; Ph.D., Columbia, 1931*
Seymour Lieberman (assigned to Obstetrics and Gynecology). *B.S., Brooklyn, 1936; M.S., Illinois, 1937; Ph.D., Stanford, 1941*
Karl Meyer (assigned to Medicine). *M.D., Cologne, 1924; Ph.D., Berlin, 1927*
David Nachmansohn (assigned to Neurology). *M.D., Berlin, 1926*
David Shemin. *B.S., College of the City of New York, 1932; M.A., Columbia, 1933; Ph.D., 1938*
Warren M. Sperry (assigned to Psychiatry). *B.Chem., Cornell, 1921; M.S., Illinois, 1922; Ph.D., Rochester, 1925*
David B. Sprinson. *B.S., College of the City of New York, 1931; M.S., New York University, 1936; Ph.D., Columbia, 1946*
Heinrich B. Waelsch (assigned to Psychiatry). *M.D., Prague, 1929; Ph.D., 1930*

ASSOCIATE PROFESSORS

Reinhold Benesch. *B.Sc., Leeds, 1941; M.Sc., 1945; Ph.D., Northwestern, 1950*
Irwin Clark (assigned to Orthopedic Surgery). *A.B., Harvard, 1939; Ph.D., Columbia, 1949*
Philip Feigelson (assigned to Medicine). *B.S., Queens, 1947; Ph.D., Wisconsin, 1951*
Barbara W. Low. *Ph.D., Oxford, 1948*
Irwin B. Wilson (assigned to Neurology). *B.S., College of the City of New York, 1941; M.A., Columbia, 1947; Ph.D., 1948*
Stephen Zamenhof (*biochemical genetics*). *M.E., Warsaw Polytechnic, 1933; D. Tech. Sc., 1936; Ph.D., Columbia, 1949*

VISITING ASSOCIATE PROFESSOR

Jaichand Sadana. *Ph.D., Panjab, 1949*

ASSISTANT PROFESSORS

George Alexander (assigned to Psychiatry). *B.S., Hobart, 1949; Ph.D., Rutgers, 1953*
Sherman Beychok (assigned to Neurology). *B.S., College of the City of New York, 1952; M.S., 1955; Ph.D., New York University, 1957*
Max A. Eisenberg. *A.B., Brooklyn, 1938; M.S., New York University, 1941; Ph.D., Duke, 1950*
Horace B. Gillespie. *A.B., Lawrence, 1925; M.S., Illinois, 1926; Ph.D., 1930*
Allen M. Gold (assigned to Neurology). *Ph.D., Harvard, 1955*
Irving Goodman (assigned to Surgery). *A.B., Colorado, 1939; M.S., 1941; Ph.D., 1944*
Erich Hirschberg (assigned to Medicine). *Ph.D., Wisconsin, 1950*
Philip Hoffman (assigned to Medicine). *B.A., Toronto, 1950; Ph.D., Rochester, 1953*
Alvin I. Krasna. *A.B., Yeshiva, 1950; Ph.D., Columbia, 1955*
Abel L. Lajtha (assigned to Psychiatry). *Ph.D., Budapest, 1945*
Ines Mandl (assigned to Obstetrics and Gynecology). *Ph.D., Brooklyn Polytechnic, 1949*
Herbert L. Meltzer (assigned to Psychiatry). *B.S., Long Island, 1942; Ph.D., Columbia, 1950*
Hermann Moser. *Ph.D., Basel, 1949*
Thomas D. Price (assigned to Urology). *A.B., California, 1942; Ph.D., Columbia, 1951*
Herman Shapiro. *B.S., College of the City of New York, 1951; Ph.D., Columbia, 1958*
Henry S. Simms (assigned to Pathology). *B.S., Massachusetts Institute of Technology, 1920; Ph.D., Columbia, 1922*
David J. Smith. *D.D.S., Columbia, 1944*
Milon Sprecher. *A.B., Yeshiva, 1947; M.A., 1949; Ph.D., Columbia, 1953*
Parithychery Srinivasan. *B.Sc., Madras, 1946; Ph.D., 1953*
Benjamin Weiss (assigned to Psychiatry). *B.S., Iowa, 1944; Ph.D., Illinois, 1949*

ASSISTANT PROFESSOR OF MEDICINE

Aaron D. Freedman. *A.B., Cornell, 1942; M.D., Albany, 1945; Ph.D., Columbia, 1958*

ASSOCIATES

Ernest Borek
Gerald Cohen (assigned to Psychiatry)
Paul E. Hochstein (assigned to Medicine)
Helen C. Lawler (assigned to Neurology)

RESEARCH ASSOCIATES

Mella Adlersberg-Zalman
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Mary J. Clark
Doris H. Clouet (assigned to Psychiatry)
Paul Cucka

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I. Aravindakshan Menon
Seiji Morisawa
Dhirendra L. Nandi
Amos Neidle (assigned to Psychiatry)
Louise L. Phillips (assigned to Obstetrics and Gynecology)
Ildiko Radichevich (assigned to Medicine)
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Rivka Rudner

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Eugene M. Volpert (assigned to Medicine)
Elsie Wainfan
Magdalena B. Wechsler
Patrice J. Zamenhof
Paula E. Zimmering (assigned to Obstetrics and Gynecology)

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Zacharias Dische

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ASSOCIATE

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PROFESSOR

Forrest E. Kendall (assigned to Medicine). *B.S., Illinois, 1921; M.S., 1924; Ph.D., 1926*

ASSISTANT PROFESSORS

Liese L. Abell (assigned to Medicine). *Ph.D., Frankfurt, 1935*
Abraham Rosenberg. *B.S., Illinois, 1947; M.S., Polytechnic Institute of Brooklyn, 1952*

► AT HARLEM HOSPITAL

RESEARCH ASSOCIATE

John B. D. Derrick (assigned to Obstetrics and Gynecology)

DERMATOLOGY

PROFESSOR

Carl T. Nelson, *chairman. A.B., Harvard, 1935; M.A., 1937; M.D., 1941*

CLINICAL PROFESSORS

Leslie P. Barker. *M.D., Columbia, 1927*
J. Lowry Miller. *A.B., North Carolina, 1923; M.D., Pennsylvania, 1927*

ASSOCIATE PROFESSOR

Margarita Silva. *A.B., Puerto Rico, 1936; M.A., Radcliffe, 1945; Ph.D., 1952*

ASSOCIATE CLINICAL PROFESSOR

Anthony N. Domonkos. *M.D., Budapest, 1939*

ASSISTANT CLINICAL PROFESSORS

Helen O. Curth. *M.D., Breslau, 1923*
Charles F. Post. *A.B., Rochester, 1942; M.D., 1944*
Theodore Rosenthal. *B.S., Columbia, 1921; M.D., 1923*
Meyer H. Slatkin. *B.S., College of the City of New York, 1935; M.D., Edinburgh, 1940*

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William Curth
James T. Hearin

INSTRUCTORS

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Marvin Brodey
Bohdan Dobias

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LECTURER

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► AT MOUNT SINAI HOSPITAL

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MEDICINE

SAMUEL BARD PROFESSOR

Stanley E. Bradley, *chairman*. *A.B., Johns Hopkins, 1934; M.D., Maryland, 1938*

PROFESSORS

Alfred Gellhorn. *M.D., Washington (St. Louis), 1937*
Yale Kneeland, Jr. *A.B., Yale, 1922; M.D., Columbia, 1926*
George A. Perera. *A.B., Princeton, 1933; M.D., Columbia, 1937; Med.Sc.D., 1942*
John V. Taggart (see Physiology). *M.D., Southern California, 1940*

PROFESSOR OF BIOCHEMISTRY

Karl Meyer. *M.D., Cologne, 1924; Ph.D., Berlin, 1927*

PROFESSOR OF MICROBIOLOGY

Calderon Howe. *A.B., Yale, 1938; M.D., Harvard, 1942*

PROFESSOR OF CLINICAL SURGERY

Charles A. Flood. *A.B., Columbia, 1925; M.D., 1928; M.S., 1933; Med.Sc.D., 1934*

CLINICAL PROFESSORS

Frederick R. Bailey. *A.B., Princeton, 1924; M.D., Johns Hopkins, 1928*
Hamilton Southworth. *A.B., Yale, 1929; M.D., Johns Hopkins, 1933*

ASSOCIATE PROFESSORS

Nicholas P. Christy. *A.B., Yale, 1945; M.D., Columbia, 1951*
Alfred P. Fishman. *A.B., Michigan, 1938; M.A., 1939; M.D., Louisville, 1943*
Paul A. Marks. *A.B., Columbia, 1945; M.D., 1949*
Elliott F. Osserman. *A.B., Columbia, 1945; M.D., 1947*

David Schachter. *B.S., New York University, 1946; M.D., 1949*
Henry O. Wheeler. *M.D., Harvard, 1951*

ASSOCIATE PROFESSOR OF BIOCHEMISTRY

Philip Feigelson. *B.S., Queens, 1947; Ph.D., Wisconsin, 1951*

ASSOCIATE PROFESSOR OF CLINICAL MEDICINE

Henry Aranow. *A.B., Harvard, 1935; M.D., Columbia, 1938*
Albert R. Lamb, Jr. *A.B., Yale, 1936; M.D., Columbia, 1940*
John H. Laragh. *M.D., Cornell, 1948*
Kermit L. Pines. *A.B., Columbia, 1937; M.D., 1942*
Sidney C. Werner. *A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937*

ASSOCIATE CLINICAL PROFESSORS

Howard G. Bruenn. *A.B., Columbia, 1925; M.S., 1933; Med.Sc.D., 1934; M.D., Johns Hopkins, 1929*
Shirley C. Fisk. *A.B., Yale, 1931; M.D., Columbia, 1935*
Putnam C. Lloyd. *A.B., Harvard, 1920; M.D., Michigan, 1924*
William B. Sherman. *A.B., Columbia, 1926; M.A., 1927; M.D., 1931*

ASSISTANT PROFESSORS

Robert E. Canfield. *B.S., Lehigh, 1952; M.D., Rochester, 1957*
Charles L. Christian. *A.B., Wichita, 1949; M.D., Western Reserve, 1953*
John A. Downey (see Physical Medicine and Rehabilitation). *M.D., Manitoba, 1954; D.Phil., Christ Church (Oxford), 1962*
Aaron D. Freedman (assigned to Biochemistry). *A.B., Cornell, 1942; M.D., Albany, 1945; Ph.D., Columbia, 1958*
DeWitt Goodman. *A.B., Harvard, 1951; M.D., 1955*
Henry O. Heinemann. *M.D., Amsterdam, 1947*
Abbie I. Knowlton. *A.B., Bryn Mawr, 1938; M.D., Columbia, 1942*
Glenn A. Langer. *A.B., Colgate, 1950; M.D., Columbia, 1954*
Gerald B. Phillips. *A.B., Princeton, 1948; M.D., Harvard, 1948*
Richard A. Rifkind. *B.S., Yale, 1952; M.D., Columbia, 1955*
Donald F. Tapley. *B.S., Carcadia, 1948; M.D., Chicago, 1952*
Gerard M. Turino. *A.B., Princeton, 1945; M.D., Columbia, 1948*
John E. Ultmann. *M.D., Columbia, 1952*
I. Bernard Weinstein. *M.D., Wisconsin, 1955*

ASSISTANT PROFESSORS OF BIOCHEMISTRY

Erich Hirschberg. *Ph.D., Wisconsin, 1950*
Philip Hoffman. *B.A., Toronto, 1950; Ph.D., Rochester, 1953*

ASSISTANT PROFESSOR OF MEDICAL SOCIAL WORK

Elizabeth R. Prichard. *A.B., Adelphi, 1943; M.S., New York School of Social Work, 1947*

ASSISTANT PROFESSORS OF CLINICAL MEDICINE

John M. Baldwin, Jr. *M.D., Columbia, 1939*
George A. Carden. *Ph.B., Yale, 1931; M.D., 1935*

Stuart W. Cosgriff. *A.B., Holy Cross, 1938; M.D., Columbia, 1942*
Felix E. Demartini. *A.B., Columbia, 1943; M.D., 1946*
Edgar Leifer. *B.S., College of the City of New York, 1937; M.A., Columbia, 1939; Ph.D., 1941; M.D., 1946*
George W. Melcher. *A.B., Colorado, 1943; M.D., Columbia, 1946*
Carl R. Wise. *M.D., Harvard, 1932*

ASSISTANT CLINICAL PROFESSORS

Clarence J. D'Alton. *A.B., Yale, 1939; M.D., Columbia, 1943*
Richard B. Duane, Jr. *A.B., Princeton, 1940; M.D., Columbia, 1943*
C. Dary Dunham. *A.B., Pennsylvania, 1931; M.D., Columbia, 1935*
Albert W. Grokoest. *A.B., Hamilton, 1940; M.D., Columbia, 1943*
Robert A. Kritzler. *A.B., Columbia, 1936; M.D., Cornell, 1940*
Daniel L. Larson. *M.D., Columbia, 1946*
Theodore B. Russell. *B.S., Princeton, 1926; M.D., Columbia, 1930*
Herbert B. Wilcox, Jr. *A.B., Yale, 1930; M.D., Columbia, 1934*

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Daniel V. Kimberg
Frederick A. Klipstein
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Elliott Middleton, Jr.
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Paul E. Hochstein

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Casco Alston
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J. Putnam Brodsky
Paul J. Cannon
Richard M. Carey
Henry P. Colmore
Neal J. Conan, Jr.
Claudio Gerbi
George C. Hennig
Ronald N. Lamont-Havers
Marvin M. Lipman
Kenneth A. McClane
William M. Manger
James A. L. Mathers
Jane H. Morse
Eduardo R. Pons, Jr.
Rudolph Preisig
Joyce C. Shaver
T. Lloyd Tyson
Earl A. Wheaton, Jr.

INSTRUCTORS IN MEDICAL SOCIAL WORK

Rosalind Miller
Esther Shaw

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John T. Beatty
Philip W. Brickner
John O. Burris
William Cohen
James A. Coss, Jr.
John M. Daley
Henry W. Doyle
Samuel Dvoskin
Dorothy Estes
Sidney Fink
Winifred H. Franklin
Anthony Gerardi
Roberta Goldring
Donald E. Harrison
Louis A. Healey
Paul K. Johnson
Donald M. Kanter
Catherine I. Lang
Mato L. Marinovich
Richard R. Prouty
Edith M. Reilly
Arthur I. Snyder
Maryloo Spooner
Joseph G. Sweeting
Cristobal A. Vicens

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Dickinson W. Richards

LECTURER

Vernon M. Ingram

► AT MARY IMOGENE BASSETT HOSPITAL

CLINICAL PROFESSOR

James Bordley III. *Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927*

ASSOCIATE CLINICAL PROFESSOR

Joseph W. Ferrebee. *A.B., Stanford, 1930; M.D., Harvard, 1934*

ASSISTANT CLINICAL PROFESSORS

Francis F. Harrison. *A.B., Yale, 1920; M.D., Columbia, 1925*
John C. Mithoefer. *A.B., Brown, 1941; M.D., Harvard, 1944*

ASSOCIATE IN BIOCHEMISTRY

Theodore Peters, Jr.

INSTRUCTORS

Emery C. Herman, Jr.
William H. Mook

INSTRUCTORS (*continued*)

Eugene D. Rames
Robert S. Sioussat

► AT BELLEVUE HOSPITAL

SAMUEL W. LAMBERT PROFESSOR

Charles A. Ragan. *A.B., Princeton, 1932; M.D., Columbia, 1936*

WESTCHESTER HEART ASSOCIATION PROFESSOR OF CARDIOVASCULAR RESEARCH

André F. Cournand. *B.A., Paris, 1913; P.C.N., 1914; M.D., 1930*

ASSOCIATE PROFESSORS

William A. Briscoe. *B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951*
Harry W. Fritts, Jr. *B.S., Massachusetts Institute of Technology, 1943; M.D., Boston, 1951*
Rejane Harvey. *A.B., Vassar, 1939; M.D., Columbia, 1943*
Julia M. Jones. *A.B., Ohio State, 1930; M.D., Duke, 1935*
John H. McClement. *A.B., Syracuse, 1938; M.D., Rochester, 1943*

ASSOCIATE PROFESSOR OF CLINICAL MEDICINE

M. Irene Ferrer. *A.B., Bryn Mawr, 1937; M.D., Columbia, 1941*

ASSOCIATE CLINICAL PROFESSORS

William R. Cunnick. *A.B., Princeton, 1947; M.D., Columbia, 1951*
Clara R. Gross. *A.B., Goucher, 1920; M.D., Johns Hopkins, 1926*
James L. Leland. *A.B., Harvard, 1929; M.D., Columbia, 1933*
H. McLeod Riggins. *B.S., North Carolina, 1922; M.D., Jefferson, 1924*

ASSISTANT PROFESSORS

Vincent P. Butler. *A.B., St. Peter's, 1949; M.D., Columbia, 1954*
Domingo M. Gomez Gimeranz. *M.D., Paris, 1929*

ASSISTANT CLINICAL PROFESSORS

Otto S. Baum. *A.B., Harvard, 1932; M.D., 1936*
Harold H. Coppersmith. *A.B., Yale, 1935; M.D., 1939*
John B. Cromie. *M.D., Queens (Belfast), 1949; M.R.C.P., Edinburgh, 1952*
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Hugh F. Fitzpatrick. *B.S., Creighton, 1942; M.D., 1943*
W. Graham Knox. *A.B., Columbia, 1939; M.D., 1942*
Richard B. Stark. *A.B., Stanford, 1936; M.D., Cornell, 1941*

ASSOCIATES
Robert T. Edmunds
Robert W. Fraser

INSTRUCTORS
Charles R. Blair

INSTRUCTORS (*continued*)
Peter A. Bossart
Clayton R. De Haan
Engel P. Hevenor
Robert McCabe
Carl S. Oakman

ASSISTANTS
William P. Burks
Alfred Moscarella
Howard Nay

UROLOGY

PROFESSOR

John K. Lattimer, *chairman.* *A.B., Columbia, 1935; M.D., 1938; Med.Sc.D., 1943*

ASSOCIATE PROFESSORS OF CLINICAL UROLOGY

Ralph J. Veenema. *A.B., Calvin, 1942; M.D., Jefferson, 1945*
Hans H. Zinsser. *B.S., Harvard, 1938; M.D., Columbia, 1942*

ASSOCIATE CLINICAL PROFESSOR

Charles T. Hazzard. *B.S., Dartmouth, 1928; M.D., Columbia, 1932*

ASSISTANT PROFESSOR

Harry Seneca. *M.D., American University of Beirut, 1933; M.S., Tulane, 1943*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Thomas D. Price. *A.B., California, 1942; Ph.D., Columbia, 1951*

ASSISTANT PROFESSOR OF PHYSIOLOGY

Richard C. Mason. *Ph.D., Indiana, 1952*

ASSISTANT PROFESSOR OF CLINICAL UROLOGY

Thomas J. Sullivan. *B.S., College of the City of New York, 1933; M.D., Maryland, 1937*

ASSOCIATES
- Stanley B. Braham
- Archie L. Dean
- John T. Donovan
- Louis J. Dougherty
- Raymond Jonnard
- Myron S. Roberts
- Reginald F. Seidel
- Aurelio Uson
- Ralph C. Yeaw

RESEARCH ASSOCIATE
- Gerda G. Mayer

INSTRUCTORS
- Clement A. Furey, Jr.
- Harold A. Garnes
- Paul Lucci
- C. Dudley Miller
- Robert R. White
- Arthur T. Willetts

ASSISTANTS
- Paul F. Crutchlow
- Bruno Fingerhut
- Frank W. Longo
- Hamid Tarassoly

► AT MARY IMOGENE BASSETT HOSPITAL

INSTRUCTOR IN SURGERY
- Rodman D. Carter

Roster of Students

Internship Placement: Class of 1963

Anderson, Martha L. *Passavant Memorial Hospital, Chicago, Ill.*

Aronson, William J. *Harbor General Hospital, Torrance, Calif.*

Assali, Albert V. *Bellevue Hospital Center, First Medical Division, New York City*

Bachner, Paul. *Presbyterian Hospital, New York City*

Baer, Leslie. *Presbyterian Hospital, New York City*

Banner, Richard L. *Strong Memorial-Rochester Municipal Hospitals, Rochester, N.Y.*

Bissell, Le Clair. *Roosevelt Hospital, New York City*

Blacklow, Neil R. *Beth Israel Hospital, Boston, Mass.*

Braun, Norma W. *Bellevue Hospital Center, First Medical Division, New York City*

Briska, Philip T. *U.S. Naval Hospital, St. Albans, N.Y.*

Brown, Arthur L. *Minneapolis General Hospital, Minneapolis, Minn.*

Brown, Robert S. *Bellevue Hospital Center, First Medical Division, New York City*

Bruce, David H. *DeGoesbriand Memorial Hospital, Burlington, Vt.*

Burd, Robert M. *Bronx Municipal Hospital Center, New York City*

Cannon, Wayne D., Jr. *St. Vincent's Hospital, New York City*

Chun, Clyde W. *St. Luke's Hospital, New York City*

Churchill, W. Hallowell. *Massachusetts General Hospital, Boston, Mass.*

Cohen, Roger D. *Bellevue Hospital Center, First Surgical Division, New York City*

Coli, Robert D. *New England Center Hospital, Boston, Mass.*

Daugharty, Terrance M. *King County Hospital, Seattle, Wash.*

Davidson, David B. *University of Pennsylvania Hospital, Philadelphia, Pa.*

Deakins, Susan M. *Roosevelt Hospital, New York City*

Dickey, Richard A. *Indiana University Medical Center, Indianapolis, Ind.*

Dickinson, Louis E. *Mary Hitchcock Memorial Hospital, Hanover, N.H.*

Ehrlich, Michael G. *Bellevue Hospital Center, First Medical Division, New York City*

Epstein, Murray. *University Hospitals, Madison, Wis.*

Feig, Stephen A. *Mount Sinai Hospital, New York City*

Feldman, Martin D. *Mount Sinai Hospital, New York City*

Ferrari, Dudley A. *New England Center Hospital, Boston, Mass.*

Fischer, Edwin G. *University Hospitals, Cleveland, Ohio*

Fisher, Susan M. *The Bronx Hospital, New York City*

Gamble, Anne V. *University of Minnesota Hospitals, Minneapolis, Minn.*

Geller, Martin P. *The Bronx Hospital, New York City*

Grant, Sandra E. *Passavant Memorial Hospital, Chicago, Ill.*

Hakanson, Carl M. *University of Virginia Hospital, Charlottesville, Va.*

Harell, George S. *Bellevue Hospital Center, First Medical Division, New York City*

Heissenbuttel, Robert. *Presbyterian Hospital, New York City*

Hoff, Eugene R. *University of Chicago Clinics, Chicago, Ill.*

Hoffman, Joel S. *University Hospital, Ann Arbor, Mich.*

Howard, Clifton M. *Mount Sinai Hospital, New York City*

Howards, Stuart S. *Peter Bent Brigham Hospital, Boston, Mass.*

Howie, Dennis P. *St. Vincents Hospital, New York City*

Hunsicker, Lawrence G. *Roosevelt Hospital, New York City*

Jordan, George W., Jr. *Palo Alto-Stanford Hospital Center, Palo Alto, Calif.*

Kahn, Mark E. *Bronx Municipal Hospital Center, New York City*

Kamins, Lloyd P. *Kings County Hospital, Brooklyn, N.Y.*

Kem, David C. *University Hospital, Ann Arbor, Mich.*

Krakoff, Lawrence R. *Presbyterian Hospital, New York City*

Krick, Warren J. *Charity Hospital of Louisiana, New Orleans, La.*

Larsen, Philip R. *Presbyterian Hospital, New York City*

Lattes, Conrad G. *Bellevue Hospital Center, First Surgical Division, New York City*

Lesneski, Albert C. *St. Luke's Hospital, New York City*

Lewis, Myron. *Vanderbilt University Hospital, Nashville, Tenn.*

Lightdale, Mayer R. *Jackson Memorial Hospital, Miami, Fla.*

Lindy, Jacob D. *Philadelphia General Hospital, Philadelphia, Pa.*

Mackler, Gerald L. *Mary Fletcher Hospital, Burlington, Vt.*

Maletzky, Avron J. *Duke Hospital, Durham, N.C.*

Manzler, Alan D. *Presbyterian-St. Luke's Hospital, Chicago, Ill.*

Mauerman, George S. *Roosevelt Hospital, New York City.*

McSherry, Elisabeth. *San Francisco General Hospital, San Francisco, Calif.*

Michelsen, W. Jost. *University Hospitals, Cleveland, Ohio*

Morgan, Daniel D., Jr. *Bellevue Hospital Center, First Surgical Division, New York City*

Mosher, Paul W. *University of Washington Affiliated Hospitals, Seattle, Wash.*

Muehlbauer, Peter F. *Jewish Hospital of Brooklyn, Brooklyn, N.Y.*

Muhm, Harvard Y. *University of Minnesota Hospitals, Minneapolis, Minn.*

Murphy, John T. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*

Musher, Daniel M. *Bellevue Hospital Center, First Medical Division, New York City*

Naiman, Peter T. *Bellevue Hospital Center, First Surgical Division, New York City*

Neer, Eva J. *Georgetown University Hospital, Washington, D.C.*

Nelson, Bruce D. *University of California Hospital, Los Angeles, Calif.*

Neu, Carmen Ortiz. *Georgetown University Hospital, Washington, D.C.*

Nevel, William G. *U.S. Naval Hospital, Bethesda, Md.*

Newberg, Marc E. *Presbyterian Hospital, New York City*

Noble, John, III. *Massachusetts General Hospital, Boston, Mass.*

Orahood, Richard C. *University of Minnesota Hospitals, Minneapolis, Minn.*

Page, Robert B. *Bellevue Hospital Center, First Surgical Division, New York City*

Paris, George L. *Palo Alto-Stanford Hospital Center, Palo Alto, Calif.*

Parker, James D. *University of Chicago Clinics, Chicago, Ill.*

Parks, Thomas W. *San Francisco General Hospital, San Francisco, Calif.*

Perlman, Richard D. *Bellevue Hospital Center, First Surgical Division, New York City*

Pleasure, David E. *Mary Fletcher Hospital, Burlington, Vt.*

Pleasure, Jeanette R. *Mary Fletcher Hospital, Burlington, Vt.*

Pohlman, Mark H. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*

Poppa, Geraldine. *Presbyterian Hospital, New York City*

Rappaport, Michael L. *Bronx Municipal Hospital Center, New York City*

Reifsnyder, David N. *St. Luke's Hospital, New York City*

Rein, Joel M. *Presbyterian Hospital, New York City*

Reynolds, James C. *Colorado General Hospital, Denver, Colo.*

Rittenberg, Stephen M. *Bronx Municipal Hospital Center, New York City*

Rosenbaum, Maj-Britt T. *Bronx Municipal Hospital Center, New York City*

Rosenblatt, Martin G. *Michael Reese Hospital, Chicago, Ill.*

Rudders, Richard A. *North Carolina Memorial Hospital, Chapel Hill, N.C.*

Ryder, Richard A. *Mary Imogene Bassett Hospital, Cooperstown, N.Y.*

Sachs, Frederick L. *Grace-New Haven Community Hospital, New Haven, Conn.*

Sade, Robert M. *Fifth Surgical Division (Harvard), Boston City Hospitals, Boston, Mass.*

Saks, Joel W. *Hospital for Joint Diseases, New York City*

Schaefer, Robert A. *Vanderbilt University Hospital, Nashville, Tenn.*

Schechter, Alan N. *Bronx Municipal Hospital Center, New York City*

Scheiner, David L. *University of Chicago Clinics, Chicago, Ill.*

Scherzer, Alfred L. *The New York Hospital, New York City*

Schneider, William J. *University of Chicago Clinics, Chicago, Ill.*

Schonberg, Stephen S. *Colorado General Hospital, Denver, Colo.*

Schwartz, David T. *St. Luke's Hospital, New York City*

Serber, Barbara Jo. *Mary Fletcher Hospital, Burlington, Vt.*

Serxner, Jonathan L. *Charity Hospital of Louisiana, New Orleans, La.*

Shupack, Jerome L. *Mount Sinai Hospital, New York City*

Silver, Lawrence R. *Mount Sinai Hospital, New York City*

Simmonds, John S. *Duke Hospital, Durham, N.C.*

Smith, Charles M. *University Hospitals, Cleveland, Ohio.*

Snyder, Bernard M. *The Medical College of Virginia Hospital, Richmond, Va.*

Steinfeld, Leonard I. *The Bronx Hospital, New York City*
Steinman, Charles R. *Presbyterian Hospital, New York City*
Taylor, Marc J. *Grace-New Haven Community Hospital, New Haven, Conn.*
Tiley, Frederick W. *Strong Memorial-Rochester Municipal Hospitals, Rochester, N.Y.*
Wayne, Eli R. *Fifth Surgical Division (Harvard), Boston City Hospitals, Boston, Mass.*
Weksler, Babette B. *Bronx Municipal Hospital Center, New York City*
Wider, Jerry A. *Mount Sinai Hospital, New York City*
Williams, Thomas A. *Presbyterian Hospital, New York City*
Wolfinger, Howard L. *Health Center Hospitals, Pittsburgh, Pa.*
Wood, Dean S. *Letterman General Hospital, San Francisco, Calif.*
Zener, Julian C. *North Carolina Memorial Hospital, Chapel Hill, N.C.*
Zweiback, Eugene M. *Roosevelt Hospital, New York City*

Class of 1964

Andrews, Willard E. Palisade, N.J.
A.B., Haverford, 1960
Arend, William P. Holland Patent, N.Y.
A.B., Williams, 1959
Attkiss, Michael J. Brooklyn, N.Y.
A.B., Harvard, 1960
Ballard, Bruce L. Waverly Hills, Ky.
A.B., Yale, 1960
Barnum, Howard J., Jr. Wilton, Conn.
A.B., Florida Southern, 1942
Barth, Rolf F. Jackson Heights, N.Y.
A.B., Cornell, 1959
Bedell, David T. Jacksonville, Fla.
A.B., Virginia, 1960
Berio, Jose M., Jr. Santurce, Puerto Rico
B.S., Puerto Rico, 1960
Berk, Paul D. Brooklyn, N.Y.
A.B., Swarthmore, 1959
Berman, Harris A. Concord, N.H.
A.B., Harvard, 1960
Blaydow, A. Kenneth Gladwyne, Penn.
A.B., Princeton, 1958
Blume, Ralph S. Yonkers, N.Y.
A.B., Amherst, 1960
Boothe, Robert L. Westfield, N.J.
A.B., Princeton, 1960
Bronshvag, Mike M. Bronx, N.Y.
A.B., New York University, 1960
Brooks, John R. Meriden, Conn.
A.B., Yale, 1960
Brower, Anne C. Westfield, N.J.
A.B., Smith, 1960
Buker, Gerald D. Vestal, N.Y.
B.S., Wheaton, 1960
Cervino, A. Lawrence Greensburg, Pa.
A.B., Princeton, 1960
Chaitman, Edmund Forest Hills, N.Y.
A.B., Hamilton, 1960
Chen, Peter S. New York City
A.B., Harvard, 1960
Childers, Jack C., Jr. Lexington, N.C.
A.B., Princeton, 1960
Conrad, Sue F. Little Falls, N.Y.
A.B., Rochester, 1960
David, David S. Great Neck, N.Y.
A.B., Columbia, 1960
Davidson, Barry A. Bloomfield, N.J.
B.S., Franklin and Marshall, 1960
Decter, Neil Rockaway Beach, N.Y.
A.B., Columbia, 1960
deFuria, Frank G. Upper Darby, Pa.
A.B., Harvard, 1960
De Muth, Simon H. New City, N.Y.
A.B., Princeton, 1960
Dent, Thomas L. Fayette City, Pa.
A.B., Yale, 1960
Doctoroff, Stephen J. Newton Centre, Mass.
A.B., Harvard, 1960
Donahoe, Patricia K. Braintree, Mass.
B.S., Boston, 1958
Egan, James H. Bellmore, N.Y.
B.S., William and Mary, 1960
Essandoh, Samuel O. Ghana, W. Africa
A.B., Lincoln, 1958
Forrest, David V. Rockville Centre, N.Y.
A.B., Princeton, 1960
Franck, Walter A. Scarsdale, N.Y.
A.B., Yale, 1960
Freedman, Gerald S. Mt. Vernon, N.Y.
B.M.E., Cornell, 1959
Freyer, Stuart Great Neck, N.Y.
A.B., Columbia, 1960
Friedberg, Michael A. Brooklyn, N.Y.
A.B., Williams, 1960
Friend, William G. Seattle, Wash.
A.B., Princeton, 1960
Frueh, Bartley R. Lakewood, Ohio
B.C.E., Cornell, 1960
Gelfand, Michael L. New York City
A.B., Columbia, 1960

Gerstel, Howard M. Hewlett, N.Y.
A.B., Columbia, 1960
Gilbert, Marvin S. Mt. Vernon, N.Y.
A.B., Columbia, 1960
Golwyn, Daniel H. Philadelphia, Pa.
A.B., Kenyon, 1959
Gregg, Thomas F. Cambridge, Mass.
A.B., Harvard, 1959
Groder, Martin G. Flushing, N.Y.
A.B., Columbia, 1960
Grollman, Evelyn F. Dallas, Tex.
A.B., Sarah Lawrence, 1960
Hamilton, Lewis L. Allison Park, Pa.
B.S., Yale, 1960
Hamilton, William G. Madison, Wis.
B.S.E., Princeton, 1954
Hart, Katherine Denver, Colo.
A.B., Smith, 1960
Henriquez, Carlos L. Yonkers, N.Y.
A.B., Columbia, 1960
Hoyte, Arthur H. Malden, Mass.
A.B., Harvard, 1960
Humphries, Robert H. Short Hills, N.J.
B.S., Wheaton, 1960
Johnson, David D., II Charleston, W.Va.
A.B., Harvard, 1960
Kaplan, Alfred I. New York City
A.B., Columbia, 1960
Kauderer, John G., Jr. New York City
A.B., Columbia, 1959
Kirchner, Peter T. Pierre, S.D.
A.B., Yale, 1960
Kistler, J. Philip Tulsa, Okla.
A.B., Harvard, 1960
Lawrence, William H., Jr.
San Francisco, Calif.
A.B., Princeton, 1960
Leventer, Leonard Merrick, N.Y.
A.B., Columbia, 1960
Lewis, Robert D. Briarcliff Manor, N.Y.
A.B., Princeton, 1960
Lipton, Richard A. West Hempstead, N.Y.
A.B., Bethany, 1960
Lowenthal, Gilbert, Jr. Braddock Hts., Md.
A.B., Brown, 1960
McCarthy, Joseph G. Lowell, Mass.
A.B., Harvard, 1960
Marmar, Kenneth A.
Framingham Centre, Mass.
A.B., Harvard, 1960
Mayer, Eugene S. Westfield, N.J.
B.S., Tufts, 1960
Mulliken, John B. Minneapolis, Minn.
A.B., Princeton, 1960
Musgrave, Franklin S. Marietta, Ohio
B.S., Syracuse, 1958
M.B.A., California (Los Angeles), 1959
A.B., Marietta, 1960
Nank, David R. Mt. Clements, Mich.
A.B., Princeton, 1960
Ogawa, Robert T. Oahu, Hawaii
A.B., Kenyon, 1960
Parsons, Charles P. Ashland, Ky.
B.S., Cornell, 1960
Patt, Stephen L. Elkins Park, Pa.
A.B., Harvard, 1960
Pietropinto, Anthony P. New York City
A.B., New York University, 1960
Platnik, Bruce H. Jamaica, N.Y.
A.B., Columbia, 1960
Poliakoff, Claude S. Forest Hills, N.Y.
A.B., Columbia, 1960
Porter, Cedric W., Jr. Wellesley Hills, Mass.
A.B., Harvard, 1960
Priestley, Joseph B., Jr. Des Moines, Iowa
A.B., Yale, 1960
Rappaport, Lawrence N. Great Neck, N.Y.
A.B., Harvard, 1960
Rechler, Matthew M. Brooklyn, N.Y.
A.B., Harvard, 1960
Reid, Watson D. Greenwich, Conn.
A.B., Yale, 1959
Reilly, John W. Ft. Lee, N.J.
A.B., Columbia, 1960
Reiss, Ian M. Brooklyn, N.Y.
A.B., Columbia, 1960
Reul, Charles G. Westfield, N.J.
A.B., Princeton, 1960
Robbins, Theodore B. Gloucester, Mass.
A.B., Harvard, 1960
Rogal, Philip J. Brooklyn, N.Y.
A.B., Princeton, 1960
Rosen, P. Peter New York City
A.B., Swarthmore, 1960
Salomon, Peter F. New York City
A.B., Harvard, 1960
Sananman, Michael L. Brooklyn, N.Y.
A.B., Swarthmore, 1960
Schreiber, Ronald New York City
A.B., Columbia, 1960
Spencer, Norman A. Brooklyn, N.Y.
A.B., Amherst, 1960
Stein, Gary F. Brooklyn, N.Y.
A.B., Union, 1960
Stiehm, William D. Madison, Wis.
B.S., Wisconsin, 1960
Stilley, J. William Homestead, Pa.
A.B., Princeton, 1960
Students, Ariana B. Red Bank, N.J.
A.B., Stanford, 1960
Sundahl, C. Gerald Bradford, Pa.
A.B., Princeton, 1960
Takekoshi, Akemi Pasadena, Calif.
A.B., Vassar, 1960
Turvey, B. Edward, Jr. Dayton, Ohio
A.B., Oberlin, 1960
Vetter, William R. Flushing, N.Y.
A.B., Amherst, 1960
Wang, Stephen F. Brooklyn, N.Y.
A.B., Columbia, 1960

Webb, Ann Heroy Sewickley, Pa.
A.B., Vassar, 1960
Webb, Charles A., Jr. Baltimore, Md.
A.B., Trinity, 1960
Williams, Edward G., Jr. Passaic, N.J.
B.S., Lehigh, 1960
Willner, Jeanne R. New Hope, Pa.
B.S., Connecticut, 1960
Wilson, William R. Mahwah, N.J.
A.B., Yale, 1960
Wolk, Michael J. New York City
A.B., Colgate, 1960
Wood, Barry G. New York City
A.B., Columbia, 1960
Wright, Geoffrey B. Merrick, N.Y.
A.B., Harvard, 1960
Zamelis, Ansis New York City
Cornell
Zipf, Richard F. San Francisco, Calif.
A.B., Stanford, 1961
Zucker, Preston New York City
A.B., Hamilton, 1960

Class of 1965

Abelson, Roberta L. Yonkers, N.Y.
A.B., Cornell, 1961
Ackley, Harry A. Lancaster, Pa.
A.B., Franklin and Marshall, 1961
Bach, Robert D. Wellesley Hills, Mass.
A.B., Princeton, 1960
Baker, John D. Havana, Cuba
A.B., Haverford, 1960
Berger, Stephen M. Philadelphia, Pa.
A.B., Princeton, 1961
Bergsma, Donald R. North Haledon, N.J.
A.B., Calvin, 1961
Biddle, Virginia Oyster Bay, N.Y.
Briarcliff
Bluming, Avrum Zvi Maplewood, N.J.
A.B., Columbia, 1961
Bohnen, Robert F. Albany, N.Y.
A.B., Syracuse, 1961
Borkenhagen, David M. Columbus, Ohio
A.B., Harvard, 1961
Branscom, James J., Jr. Piedmont, Calif.
A.B., Stanford, 1961
Bridger, Abraham A. New York City
A.B., Yale, 1959
Brock, Donald J. Buffalo, N.Y.
A.B., Yale, 1961
Brodie, Harlow K. H. New Canaan, Conn.
A.B., Princeton, 1961
Brown, Norman D. Flushing, N.Y.
A.B., Princeton, 1961
Bryant, Daniel C. Cincinnati, Ohio
A.B., Princeton, 1961
Caplan, Harvey W. Ellwood City, Pa.
A.B., Swarthmore, 1961
Carida, Robert V. Newark, N.J.
A.B., Rutgers, 1961
Caskey, William B. Harrisburg, Pa.
A.B., Franklin and Marshall, 1961
Cole, James R. Buffalo, N.Y.
A.B., Princeton, 1961
Condon, James J. White Plains, N.Y.
A.B., Cornell, 1961
Cottrell, Thomas S. San Francisco, Calif.
A.B., Brown, 1955
Culver, James E., Jr. Bridgeville, Del.
A.B., Dartmouth, 1960
Davis, William J. Forty Fort, Pa.
A.B., Wilkes, 1961
Delbanco, Thomas L. Larchmont, N.Y.
A.B., Harvard, 1961
Drescher, Marian Staten Island, N.Y.
A.B., Hunter, 1961
Edie, Richard N. Yonkers, N.Y.
A.B., Princeton, 1959
Falk, Stephen Brooklyn, N.Y.
A.B., Princeton, 1961
Faulk, James W. Jamestown, N.Y.
A.B., Rochester, 1961
Finkelstein, Norman M. New York City
A.B., Yale, 1961
Forester, Bruce M. New York City
A.B., Dartmouth, 1960
Garfein, Oscar B. New York City
A.B., Columbia, 1961
Ginsburg, Howard N. Newton Centre, Mass.
A.B., Harvard, 1961
Glenn, Michael L. Boston, Mass.
A.B., Princeton, 1959
M.A., Harvard, 1960
Goldreyer, Bruce N. New York City
A.B., Amherst, 1961
Haase, Ashley T. Crystal Lake, Ill.
A.B., Lawrence, 1961
Hadden, John W. Cold Spring Harbor, N.Y.
A.B., Yale, 1961
Hale, Stanton D. Darien, Conn.
A.B., Princeton, 1959
Hamada, Paul M. New Rochelle, N.Y.
A.B., Yale, 1961
Harris, Susan R. New York City
A.B., Michigan, 1961
Hertz, Philip New York City
A.B., Cornell, 1961

Horan, Anthony H. New York City
A.B., Dartmouth, 1961
Iseman, Michael D. Fremont, Neb.
A.B., Princeton, 1961
Jainchill, John L. New York City
A.B., Columbia, 1961
James, William A., Jr. Humboldt, Tenn.
A.B., Princeton, 1960
Johnson, Eric H. Muskogee, Okla.
A.B., Harvard, 1961
Keyser, John J. Arlington, Va.
A.B., Princeton, 1961
Kripke, Daniel F. West Orange, N.J.
A.B., Harvard, 1961
Kuehner, Charles R. Ft. Thomas, Ky.
S.B., Massachusetts Institute of Technology, 1958
Kurtin, Stephen B. New York City
A.B., Princeton, 1961
Labarthe, Darwin Honolulu, Hawaii
A.B., Princeton, 1961
Lambert, Brent W. Atherton, Calif.
A.B., Harvard, 1961
Lee, Keat-Jin Penang, Malaya
A.B., Harvard, 1961
Levy, Jay A. Wilmington, Del.
A.B., Wesleyan, 1960
Lisak, Robert P. Brooklyn, N.Y.
A.B., New York University, 1961
Longstreth, George B., III Fairfield, Conn.
A.B., Yale, 1961
Lopano, Angelo J. New York City
A.B., Fordham, 1961
Luhrmann, George W., Jr. Dayton, Ohio
S.B., Massachusetts Institute of Technology, 1956
M.S., Massachusetts Institute of Technology, 1957
Lyden, John P. New Canaan, Conn.
A.B., Harvard, 1961
McCullough, William B. New York City
A.B., Whitmore, 1953
B.D., Princeton Theological Seminary, 1956
MacFarland, Joseph A. Elmont, N.Y.
B.S., Manhattan, 1961
MacLean, William A. H. Huntington, N.Y.
B.S., Yale, 1961
MacMillan, Roger W. Schenectady, N.Y.
B.S., Trinity, 1961
Mallis, George I. Cedarhurst, N.Y.
A.B., Harvard, 1961
Mattern, William D. Kenmore, N.Y.
A.B., Hamilton, 1961
Merey, John H. Forest Hills, N.Y.
A.B., Union, 1961
Milic, Ann Boyer Staten Island, N.Y.
B.S., Columbia, 1961
Miller, Jacob D. New York City
A.B., Harvard, 1961
Mooney, James K., Jr. Nyack, N.Y.
A.B., Yale, 1961
Murray, Thomas M. New York City
A.B., Georgetown, 1961
Myerson, Daniel A. West Hartford, Conn.
B.S., Trinity, 1961
Myerson, Paul J. West Hartford, Conn.
B.S., Trinity, 1961
Nape, William J. New Orleans, La.
A.B., Johns Hopkins, 1961
Nenninger, Robert H. New York City
A.B., Columbia, 1961
Ng, Keng-Yong Singapore, Malaya
A.B., Stanford, 1961
O'Brien, Richard T. New York City
A.B., Columbia, 1961
O'Connor, Ronald W. Scarsdale, N.Y.
B.S., Yale, 1961
Oparil, Suzanne Elmira, N.Y.
A.B., Cornell, 1961
Pan, Shirley N.-H. Hong Kong
A.B., Wellesley, 1961
Pearl, Jon S. Hampton, Va.
A.B., Duke, 1961
Perkins, Richard P. Montpelier, Vt.
A.B., Hamilton, 1961
Peterson, Lynn M. Chicago, Ill.
A.B., St. Olaf, 1961
Portnoy, Barry F. New York City
A.B., New York University, 1961
Price, Ronald L. Pittsburgh, Pa.
A.B., Oberlin, 1961
Ratzan, Sanford A. New York City
A.B., Hamilton, 1961
Redmond, Paul C. Columbus, Ohio
B.S., Denison, 1961
Reichek, Nathaniel New York City
A.B., Columbia, 1961
Rofman, Samuel E. New York City
A.B., Columbia, 1961
Rose, Stuart R. New York City
A.B., Amherst, 1960
St. John, Ronald K. Marietta, Ga.
A.B., Yale, 1961
Schachter, Michael B. Cranford, N.J.
A.B., Columbia, 1961
Schreiber, Robert F. Grosse Pointe Park, Mich.
A.B., Harvard, 1961
Schuker, Eleanor S. New York City
A.B., Swarthmore, 1961
Schurman, David J. Highland Park, Ill.
A.B., Yale, 1961
Scielzo, Charles M. Ridgewood, N.J.
A.B., Harvard, 1961
Shulman, Michael G. Paterson, N.J.
A.B., North Carolina, 1961
Siegal, Frederick P. New York City
A.B., Cornell, 1961

Simmons, Barry P. Brookline, Mass.
A.B., Harvard, 1961
Singer, Kenneth M. Sac City, Iowa
S.B., Massachusetts Institute of Technology, 1961
Slaton Scheidt, Stephen M. New York City
A.B., Princeton, 1960
Sobol, Samuel M. S. Orange, N.J.
A.B., Yale, 1961
Spiegel, Dorothy E. New York City
A.B., Vassar, 1961
Stanley, Theodore H. New York City
A.B., Columbia, 1961
Steel, Richard K. New York City
A.B., Yale, 1961
Stern, Lawrence Z. New York City
A.B., Columbia, 1961
Symington, Diana G. New Hyde Park, N.Y.
A.B., Hunter, 1961
Taylor, Davida E. Berkeley, Calif.
A.B., College of the Pacific, 1960
Thompson, Richard H., Jr. Salem, Mass.
B.A., Harvard, 1960
Urbach, Jim I. South Orange, N.J.
A.B., Williams, 1961
Wallace, Richard C. Brookline, Mass.
A.B., Yale, 1960
Weingarten, Peter L. New York City
A.B., Yale, 1961
Weintraub, Joel Caldwell, N.J.
A.B., Columbia, 1961
Weld, Francis M. Smithtown, N.Y.
A.B., Harvard, 1961
Wlodkoski, Joan H. Manchester, N.H.
B.S., New Hampshire, 1961
Yvars, Manuel F. New York City

Class of 1966

Adler, George T. Elmont, N.Y.
A.B., Vermont, 1962
Albanese, Richard Alan Nutley, N.J.
A.B., Princeton, 1962
Albright, Nile L. Newton Centre, Mass.
A.B., Harvard, 1961
Alexander, John Maurice New York City
A.B., Harvard, 1962
Angstreich, David E. New York City
A.B., Columbia, 1962
Arnsdorf, Morton Frank Chicago, Ill.
A.B., Harvard, 1962
Ashman, Robert F. Indianapolis, Ind.
A.B., Wabash, 1960
Baker, John Herbert, Jr. Rochester, N.Y.
B.S., Trinity, 1962
Balfour, Henry H., Jr. Ridgewood, N.J.
A.B., Princeton, 1962
Ballo, Joseph Michael New York City
B.S., Manhattan, 1962
Bank, Arnold Harvey New York City
A.B., Columbia, 1962
Bannister, Terrance Swain New York City
A.B., Harvard, 1962
Baratta, Robert Orazio Jersey City, N.J.
B.S., St. Peter's College, 1962
Barzun, James Lowell New York City
A.B., Harvard, 1961
Belcher, Jonathan K. Lakeville, Conn.
A.B., Princeton, 1962
Benjamin, John Tabb Westfield, N.J.
A.B., Harvard, 1962
Bingham, David Brewster Salem, Conn.
A.B., Yale, 1962
Blood, David King Leonia, N.J.
A.B., Amherst, 1962
Brauninger, Gordon Ernest Miami, Fla.
Rensselaer Polytechnic Institute
Brown, David Henderson Dobbs Ferry, N.Y.
Burgin, James Matthew Brookline, Mass.
A.B., Haverford, 1962
Carraway, Robert Dorff Chester, Mass.
A.B., Duke, 1962
Chin, Irene Bayside, N.Y.
A.B., Barnard, 1962
Cohen, Elsa Brenner Scarsdale, N.Y.
Cohen, Morton Lee Woodmere, N.Y.
A.B., Harvard, 1962
Cook, Robert Brian Leonia, N.J.
A.B., Wesleyan, 1962
Cory, Stephen P. New York City
A.B., Hobart, 1962
Dallow, Richard Leonard Cincinnati, Ohio
A.B., Princeton, 1962
Donham, Robert Thomas Evansville, Ind.
A.B., Evansville, 1954
Dranitzke, Richard J. Patchogue, N.Y.
A.B., Wesleyan, 1962
Drusin, Ronald E. Long Beach, N.Y.
B.S., Union College, 1962
Elting, James J. Belleville, N.J.
A.B., Yale, 1961
Embury, Ruth A. New York City
A.B., Penn State, 1944
Ferguson, Wayne W. Washington, Pa.
A.B., Washington–Jefferson, 1962
Fieger, Henry George, Jr. Bronxville, N.Y.
A.B., Amherst, 1962

Fitzmorris, Clark S. Cincinnati, Ohio
A.B., Yale, 1962
Flamenbaum, Walter New York City
A.B., Washington–Jefferson, 1962
Flint, James Foreman Delhi, N.Y.
A.B., Harvard, 1962
Garshanin, Helen Long Island City, N.Y.
A.B., New York University, 1962
Gerstein, Herbert Levittown, Pa.
A.B., Columbia, 1962
Giargiana, Frank Anthony, Jr. Lynbrook, N.Y.
A.B., Columbia, 1962
Giventer, Lawrence Albany, N.Y.
A.B., Hamilton, 1962
Glass, Peter Martin Malverne, N.Y.
A.B., Princeton, 1962
Glick, Robert Alan New York City
A.B., Yale, 1962
Goldberg, Norma Sydney Pelham Manor, N.Y.
A.B., Smith, 1962
Goodman, Robert Leon New Rochelle, N.Y.
A.B., Dartmouth, 1962
Greer, Douglas Fielder Arlington, Va.
A.B., Princeton, 1961
Hamilton, Gerald Lee Endwell, N.Y.
A.B., Hamilton, 1962
Hanger, Clay N. Cleveland, Ohio
A.B., Princeton, 1957
Harris, John Justus Des Moines, Iowa
A.B., Harvard, 1962
Heroy, James Harold, III Sewickley, Pa.
A.B., Yale, 1962
Hildebrand, Louis Edward Grand Junction, Colo.
B.S., Wheaton, 1962
Hollander, Annette Joan New York City
A.B., Radcliffe, 1962
Irvine, Robert Dailey Beverly Hills, Calif.
A.B., Pomona, 1962
Johnson, Thomas Alden Williamstown, Mass.
A.B., Williams, 1962
Kaufman, Howard Herschel Flint, Mich.
A.B., Yale, 1962
Kelly, James Montgomery, III Englewood, N.J.
A.B., Yale, 1962
Kirsner, Robert Shneider Chicago, Ill.
A.B., Oberlin, 1962
Knapp, Robert Vaughan Roslyn Estates, N.Y.
A.B., Harvard, 1962
Lefkowitz, Robert Joseph New York City
A.B., Columbia, 1962
Lightdale, Charles J. Jersey City, N.J.
A.B., Princeton, 1962
Lowance, David Chandler Atlanta, Ga.
A.B., Emory, 1962
McClelland, Robert Rugh Maryville, Tenn.
B.S., United States Military Academy, 1955
Mackenzie, John Malcolm Westfield, N.J.
A.B., Columbia, 1962
Mathews, Helen E. Gary, Ind.
A.B., Indiana, 1957
Max, Martin Hugh Brighton, Mass.
A.B., Harvard, 1962
Milgram, Robert Willard New York City
A.B., Columbia, 1962
Miller, Jordan Dale New York City
A.B., Brandeis, 1962
Molavi, Abdolghader Teheran, Iran
A.B., Western Reserve, 1962
Muller, Alfred New York City
A.B., Princeton, 1962
Murray, Ethelann New York City
A.B., Vassar, 1962
Myers, H. Jack Somerville, N.J.
A.B., Princeton, 1962
Nason, Jeffrey David Newton Centre, Mass.
A.B., Harvard, 1960
Nisonson, Barton New York City
A.B., Columbia, 1962
Palatucci, Donald Michael Pelham, N.Y.
A.B., Holy Cross, 1962
Patten, Bernard M. New York City
A.B., Columbia, 1962
Pauley, Stephen McHenry Beverly Hills, Calif.
A.B., Pomona, 1962
Penn, Richard Deren Chicago, Ill.
A.B., Haverford, 1962
Perera, David Rhoads New York City
A.B., Amherst, 1962
Pinchot, Marianna Upperco, Md.
A.B., Bryn Mawr, 1962
Poletti, Charles E. New York City
A.B., Harvard, 1960
Popio, Kenneth Angelo Youngstown, Ohio
A.B., Youngstown, 1962
Raybin, Peggy Sue New York City
B.S., College of the City of New York, 1962
Richardson, Harry Blair, Jr. Bowling Green, Ky.
B.S., Davidson, 1962
Rohrs, Charles Conrad Portland, Ore.
A.B., Columbia, 1962
Rowe, Thomas Stephen Lake Worth, Fla.
S.B., Massachusetts Institute of Technology, 1962
Rudolph, Ross Reading, Pa.
A.B., Yale, 1962
Sah, Benn Chih-mao San Francisco, Calif.
A.B., Haverford, 1962
Saj, George Passaic, N.J.
A.B., Dartmouth, 1962

Saland, David K. Merrick, N.Y.
A.B., Columbia, 1962
Salenger, Gary Beverly Hills, Calif.
A.B., Yale, 1962
Schachter, Roberta Kinstler New York City
Schuster, David S. New York City
A.B., Colgate, 1962
Scott, H. Denman Pacific Palisades, Calif.
A.B., Stanford, 1960
Sears, Henry F. New York City
A.B., Pennsylvania, 1962
Selvey, Henry Arthur South Nyack, N.Y.
A.B., Rochester, 1962
Seymann, Roger Bernard New York City
A.B., Columbia, 1962
Shackman, Daniel Robert New York City
A.B., Columbia, 1962
Shields, Walker Edmund, Jr. Greenwich, Conn.
A.B., Yale, 1962
Simsarian, James Parsons Chevy Chase, Md.
A.B., Earlham, 1962
Snider, Donald L. Kent, Ohio
A.B., Haverford, 1962
Spotnitz, Henry Michael New York City
A.B., Harvard, 1962
Srinivasan, Balachandran Dobli Madras, India
A.B., Bard, 1959
Stewart, George Hoague Denver, Colo.
A.B., Harvard, 1962
Sullivan, R. Clark Bronxville, N.Y.
A.B., Stanford, 1962
Tavernetti, Richard Roland Salinas, Calif.
B.S., California, 1960
Taylor, H. Denny Lincoln, Neb.
A.B., Nebraska, 1962
Tholfsen, Judith Marie New York City
A.B., Pennsylvania, 1962
Tucker, David Theodore Valley Stream, N.Y.
A.B., Columbia, 1962
Varmus, Harold E. Freeport, N.Y.
A.B., Amherst, 1961
Walker, Thornton Shaler New York City
A.B., Washington and Jefferson, 1960
Waters, George H. Marshfield, Wis.
A.B., Princeton, 1961
Weinstein, Allan Joseph Newtonville, Mass.
A.B., Yale, 1962
Wheeler, Maynard B. New York City
A.B., Dartmouth, 1961
White, Robert Peel Omaha, Neb.
A.B., Yale, 1962
William, Lawrence Arthur East Elmhurst, N.Y.
A.B., Columbia, 1962
Withington, Richard Lawrence Watertown, N.Y.
B.S., Holy Cross, 1962
Wolff, John McDowell Atlanta, Ga.
A.B., Vanderbilt, 1962
Zucker, Jonathan Elias New York City
A.B., Columbia, 1962

Class of 1967

The students who have been accepted as of the date this bulletin went to press are as follows:

Ackley, Alexander McF., Jr. Madison, N.J.
B.S.E., Princeton, 1962
Alessio, Ronald Charles New Kensington, Pa.
A.B., Yale, 1963
Allen, Lewis East Patchoque, N.Y.
A.B., Columbia, 1963
Andrews, William Baird Philadelphia, Pa.
A.B., Princeton, 1963
Balch, Charles Mitchell Toledo, Ohio
Toledo
Banyard, Richard David Trenton, N.J.
A.B., Princeton, 1963
Beech, Thomas Foster St. Paul, Minn.
A.B., Carleton, 1961
Berger, Walter Everette III Garden City, N.Y.
B.S.E., Princeton, 1960
Biles, James David III Memphis, Tenn.
A.B., Yale, 1963
Blabey, Robert G., Jr. Albany, N.Y.
A.B., Hamilton, 1963
Black, David John Rocky River, Ohio
A.B., Princeton, 1963
Bowen, John Canada III Forrest City, Ark.
A.B., Yale, 1963
Bragg, Franklin Everett II Bangor, Me.
A.B., Amherst, 1963
Brensilver, Howard L. Williston Park, N.Y.
A.B., Columbia, 1963
Brewster, David Charles New York City
A.B., Trinity, 1963
Briley, John Marshall, Jr. Perrysburg, Ohio
A.B., Harvard, 1963
Brockman, Frank E. Dobbs Ferry, N.Y.
A.B., Cornell, 1961

Chadbourn, Charles C. III Ruston, La.
B.S., Louisiana Polytechnic Institute, 1963
Christensen, Roger Paul Fremont, Neb.
A.B., Grinnell, 1963
Christensen, Thomas Bentley Fremont, Neb.
A.B., Grinnell, 1963
Clark, Preston Robinson, Jr. New Hartford, N.Y.
A.B., Cornell, 1963
Clark, Robert Amos Syracuse, N.Y.
A.B., Syracuse, 1963
Cohen, Bernard Hershel Wilkes-Barre, Pa.
A.B., Wilkes, 1963
Cohen, Myles Joseph El Paso, Tex.
A.B., Princeton, 1963
Curci, Michael Robert New York City
A.B., Princeton, 1963
DeAngelis, Roger Thomas Yonkers, N.Y.
A.B., Columbia, 1963
Drew, Michael Anthony Dallas, Tex.
B.S., Massachusetts Institute of Technology, 1960
Feibel, John H. Cincinnati, Ohio
A.B., Pennsylvania, 1963
Feinberg, David H. Great Neck, N.Y.
A.B., Princeton, 1963
Finkelstein, Fredric O. New York City
A.B., Yale, 1963
Fleming, Thomas Charles Westfield, N.J.
A.B., Kenyon, 1963
Follows, John William, Jr. New York City
A.B., Yale, 1963
Frank, Richard New York City
A.B., Columbia, 1963
Fu, Karen King-Wah Hong Kong
A.B., Barnard, 1963
Gaines, John Elliott New York City
B.S., Trinity, 1963
Garrell, Stephen Lloyd New York City
B.Ch.E., Cornell, 1963
German, Harold Jersey City, N.J.
A.B., Princeton, 1963
Getz, Marcia Lynn Hartsdale, N.Y.
A.B., Vassar, 1963
Gise, Frederick M. New York City
A.B., Columbia, 1963
Glen, Dulaney Syosset, N.Y.
A.B., Yale, 1955
Greenberger, Robert Allen East Orange, N.J.
A.B., Rutgers, 1963
Grossman, Robert A. Frenchtown, N.J.
A.B., Lafayette, 1963
Hartley, Leslie Jane New York City
A.B., Bryn Mawr, 1963
Heilbrunn, Ernst Ridgefield, N.J.
B.M.E., College of the City of New York, 1957
Hodge, Charles J., Jr. Short Hills, N.J.
A.B., Princeton, 1963
Hofmann, Peter L. New York City
A.B., New York University, 1963
Holschuh, Fred Carl Huntington, N.Y.
B.S., Rensselaer Polytechnic Institute, 1963
Howland, John Seymour Amherst, Mass.
A.B., Yale, 1963
Hurd, Richard Alva, Jr. Atlanta, Ga.
Emory
Imbembo, Anthony Louis New York City
A.B., Columbia, 1963
Johnson, William Gessner Wilmette, Ill.
A.B., Princeton, 1963
Johnston, Bruce Cecil San Leandro, Calif.
A.B., Stanford, 1962
Jones, R. DeWitt S. University City, Mo.
A.B., Yale, 1963
Jones, T. Stephen, Jr. Milton, Mass.
A.B., Yale, 1963
Kaiser, Carol A. Locust Valley, N.Y.
B.S., Tufts, 1963
Kearney, John F., Jr. Maplewood, N.J.
A.B., Harvard, 1963
Killebrew, Kate Des Moines, Iowa
A.B., Swarthmore, 1961
Kirschberg, Gordon Joseph Montreal, Canada
B.S., McGill, 1963
Kolman, Benet Sosnik Brevard, N.C.
A.B., Harvard, 1963
Kuster, Gordon Iverson Tarrytown, N.Y.
A.B., Yale, 1963
Lee, William Martens Yorktown Heights, N.Y.
A.B., Amherst, 1963
Levy, Nelson Louis Bound Brook, N.J.
B.S., Yale, 1963
Mackler, Richard J. West Hartford, Conn.
A.B., Harvard, 1961
McKane, Douglas D.U. Garden City, N.Y.
A.B., Adelphi, 1963
McNamara, Thomas Edward Chicago, Ill.
A.B., Johns Hopkins, 1963
Meehan, Elizabeth Anne Wethersfield, Conn.
A.B., Mount Holyoke, 1963
Merwin, Grier Humphrey Washington, D.C.
A.B., Duke, 1963
Miller, Edward Judson Watertown, Wis.
A.B., Harvard, 1963
Missel, Jerome Lee Streator, Ill.
A.B., Princeton, 1963
Morgan, Alexander Charles Atlanta, Ga.
B.S., Davidson, 1963
Myers, Robert Perry Waterville, Me.
A.B., Yale, 1963
Nakano, Kenneth Kenji Los Angeles, Calif.
A.B., Pomona, 1963
Noel, Gordon Lee Missoula, Mont.
A.B., Harvard, 1963

Novak, Stanley Frank New York City
A.B., College of the City of New York, 1963
Novalis, George Stephen New York City
A.B., Columbia, 1963
Nugent, Jane Kathryn New Shrewsberry, N.J.
A.B., Wellesley, 1963
Oke, Tommy Olawvyi Ogbormosho, Nigeria
B.S., Oklahoma, 1961
Olcott, Cornelius, IV Harlingen, Tex.
A.B., Princeton, 1963
Olds, David Douglas Windsor, Conn.
A.B., Yale, 1960
Penner, Daniel Bernheim New York City
A.B., Yale, 1962
Perry, Samuel Wesley III New Castle, Pa.
A.B., Princeton, 1963
Pershouse, Derek C. Englewood, N.J.
A.B., Trinity, 1958
Petito, Frank Alfred, Jr. Princeton, N.J.
A.B., Princeton, 1963
Pieri, Carolyn May Corning, N.Y.
A.B., Oberlin, 1963
Pollack, Arthur Carl New York City
B.S., Hobart, 1963
Raabe, Daniel Stauffer, Jr. Yonkers, N.Y.
A.B., Colgate, 1963
Rodvien, Robert New York City
A.B., Columbia, 1963
Rohrlich, Jay Barry New York City
A.B., Williams, 1963
Rosefsky, Quinn Benensohn Binghamton, N.Y.
A.B., Yale, 1963
Rosen, Marvin Great Neck, N.Y.
A.B., Columbia, 1963
Rosenblum, Gerald Stephen New Hyde Park, N.Y.
A.B., Amherst, 1963
Russell, Robert Mitchell Gloucester, Mass.
A.B., Harvard, 1963
Scheinhorn, David J. Merrick, N.Y.
A.B., Princeton, 1963
Schmidt, Paula Ann Denmark, Me.
B.S., Bates, 1963
Schneider, Richard Paul Lakeland, Fla.
A.B., Emory, 1963
Schneier, Harvey Alan Rochester, N.Y.
A.B., Columbia, 1963
Sellner, Henry Ascher New York City
A.B., Columbia, 1963
Sherman, Stanley New York City
A.B., Columbia, 1963
Shukovsky, Leonard Jay Belle Harbor, N.Y.
A.B., Dartmouth, 1963
Silverstein, Fred Eli Monroe, N.Y.
A.B., Alfred, 1963
Sloane, Robert Edward Randolph, Mass.
A.B., Harvard, 1963
Snyder, Thomas James Bethlehem, Pa.
A.B., Virginia Military Institute, 1963
Srodes, Charles H. Pittsburgh, Pa.
A.B., Wesleyan, 1963
Stasiuk, Demetrius Irvington, N.J.
A.B., Princeton, 1963
Stein, Sherman Charles Philadelphia, Pa.
A.B., Pennsylvania, 1963
Stookey, Robert Alan Corning, N.Y.
A.B., Hamilton, 1963
Sweeney, James G. New York City
B.S., Manhattan, 1963
Tillisch, Jan Henrik Rochester, Minn.
A.B., Yale, 1962
Tracht, Diane Goldberg River Edge, N.J.
A.B., Bryn Mawr, 1957
Violin, George Alfred New York City
A.B., Columbia, 1963
Wadley, Michael Ferris Akron, Ohio
B.A., Ohio State, 1961
B.S., 1962
Waskell, Lucy Ann Wilkes-Barre, Pa.
B.S., Pennsylvania State, 1963
Wenglin, Barry David New York City
A.B., Columbia, 1963
Willey, John Rogers Baton Rouge, La.
A.B., Harvard, 1959
Wilson, James Ronald New York City
A.B., Wesleyan, 1963
Winickoff, Richard Noah Ridgefield, N.J.
A.B., Harvard, 1963
Winner, Samuel David Huntingdon Valley, Pa.
B.S., Trinity, 1963
Winslow, Richard Lee Caribou, Me.
A.B., Bowdoin, 1963
Wiseley, Sally Fay Cambridge, Mass.
A.B., Radcliffe, 1955
Wohlauer, Peter F. Englewood, Colo.
A.B., Harvard, 1962

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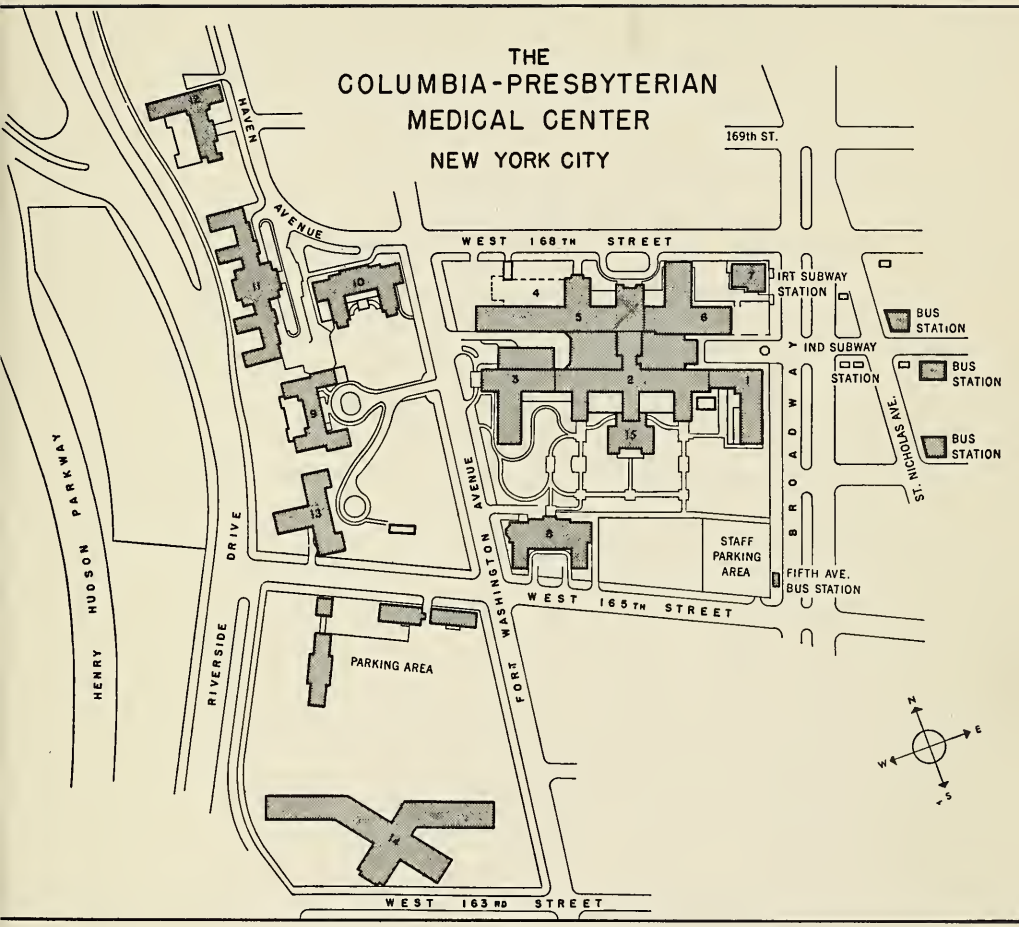

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